



# BOAT-BOOK

UNITED STATES NAVY

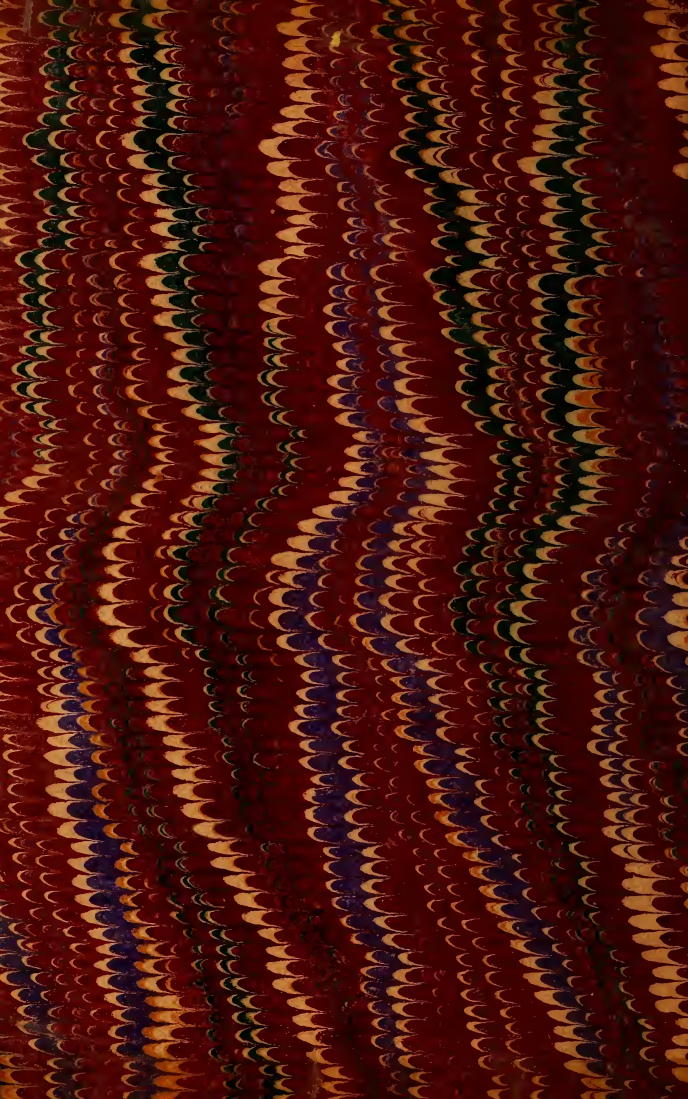
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*Stirling H. S. Mc*

MAR 11 1908

# BOAT-BOOK

UNITED STATES NAVY

1908



PREPARED UNDER THE DIRECTION OF THE  
U.S. BUREAU OF NAVIGATION,  
NAVY DEPARTMENT



BY A BOARD COMPOSED OF

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DAYTON B. VOGEE COLLECTION

NAVAL INSTITUTE, ANNAPOLIS, MD.

1913

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NAVY DEPARTMENT,  
WASHINGTON, D. C.,

JULY 6, 1908.

The Boat-Book, U. S. Navy, 1905, prepared under the direction of the Bureau of Navigation, and revised July, 1908, is issued for the use of the Navy. The instructions contained in this revised book supersede all others of a similar nature, and will be strictly observed.

J. E. PILLSBURY, *Acting Secretary.*

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Corrections made in accordance with the Department's orders of February 23, 1912, and April 4, 1913.

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# INTRODUCTION.

The Board for the Revision of Service Drill-Books has classified all drills under three separate heads—*ship drills*, *boat drills*, and *shore drills*—and these have been embodied in three books as follows:

**Ship and Gun-Drills, U. S. Navy, 1907.**

**Boat-Book, U. S. Navy, 1908.**

**The Landing-Force and Small-Arm Instructions, U. S. Navy, 1907.**

The Boat-Book, U. S. Navy, 1908, contains instructions on all matters pertaining to boats, boat-exercises, etc., as well as instructions in U. S. Navy-Signals, and a table of boat-signals. It is a compilation of orders and instructions which have heretofore been scattered in various publications, combined with hitherto unwritten customs of the service. These are all assembled in the Boat-Book for convenience of reference and to insure uniformity in all matters pertaining to boats.

The instructions which relate purely to seamanship are taken almost entirely from either Knight's Modern Seamanship, or from Luce's Seamanship (Ward), 1895. Regulations for the prevention of collisions at sea, and the buoy system in United States waters are copied from the Boat-Signal Book, 1898. Boat-drills and exercises are compiled from the above-mentioned treatises on seamanship, from various official pamphlets, etc., and they include also the customs of the service.

General instructions concerning service in ships' boats, boat-salutes, etc., are founded on instructions in the U. S. Navy Regulations and include many hitherto unwritten customs of the service.

The boat-signals are designed for use in communicating between ships and boats and in exercising flotillas of boats. The signal-letters, as grouped in these signals, are not to be found in any other part of the Navy code (except "Line of Bearing Change," Time- and Date- and Compass-Signals) and they can therefore have no meaning other than that assigned to them as Boat-Signals. The instructions in the navy code which are contained herein are not confidential, hence the Boat-Book is to be considered in no sense confidential—those to whom it may be issued being held only to the same accountability that applies in the case of other government property.

Instructions for tactical maneuvers are to be found in the tactical signal-book, with which all officers are expected to make themselves familiar.

Boat-Books will be accounted for by the commanding officer of the ship to which issued, and he will use his discretion in

issuing them to officers and in having them kept in the boat-boxes of all or certain of the ship's boats. Coxswains will be thoroughly instructed in their contents.

No boat expedition should ever be without a Boat-Book for each boat and the means of making signals.

Often the boat-signals will offer the readiest means of communication between ships and forces or parties ashore, either by erecting signal-masts or stations ashore, or by utilizing a boat or boats in touch with the force or parties ashore.

As far as practicable boats away from their ships on any duty where signal communication may be desirable shall have a copy of the Boat-Book.

Suggestions regarding changes or improvements are invited, and these shall be submitted to the Bureau of Navigation.



# PART I

## BOATS IN GENERAL.

1. Vessels of the U. S. Navy are supplied with one or more of the following classes of boats:

- |                            |                             |
|----------------------------|-----------------------------|
| 1. Steamers.               | 7. Motor whaleboats.        |
| 2. Motor boats.            | 8. Dinghies.                |
| 3. Sailing launches.       | 9. Motor dinghies.          |
| 4. Motor sailing launches. | 10. Motor dories.           |
| 5. Cutters.                | 11. Wherries.               |
| 6. Whaleboats.             | 12. Punts, catamarans, etc. |

Steam barges or motor barges are furnished flagships.

### GENERAL DESCRIPTION.

**2. General remarks.**—The size of ship's boats is indicated by their length in feet, for example a 28-foot cutter, a 36-foot steamer, etc. The following is the length (in feet) of the boats now supplied to vessels of different classes: Steamers, 50, 40, 36, 33, 30, and 28 feet; sailing-launches, 36, 33, and 30 feet; cutters, 30, 28, 26, 24 feet and a standard 31-foot racing-cutter; whaleboats, 30, 29, 28, and 24 feet; and dinghies 20, 18, 16, and 14 feet. Special 20-foot cutters and whaleboats are supplied to torpedo craft.

**3. Steamers.**—First-class battleships usually carry three steamers of different size. In the latest ships one of these will be a picket-launch, about 50 feet long. All steamers of the regulation type are fitted to mount a light rapid-fire or machine-gun in the bow. They are usually fitted with sail power, lug-rigged, to be used when the boiler is removed. Steamers are fitted with rowlock-sockets in the wash-board, and should always carry at least two oars and rowlocks for use in an emergency. Steamers assigned to the use of flag officers are known as steam-barges. Steamers of a ship are distinguished by their number, 1st, 2d, and 3d steamers.

**4. Sailing-launches** are large, heavy working-boats, square sterned, sloop-rigged, and they are so named from the fact that sail is their usual mode of propulsion. They, like steamers, are fitted to mount a light rapid-fire or machine gun in the bow. Sailing-launches are supplied with oars, and instead of rowlocks they use grommets and thole-pins. By double-banking the thwarts, considerable speed under oars may be attained. These boats are specially designed for ship's heavy work, such as carrying water or stores, large liberty-parties, carrying out anchors, weighing kedge-anchors, etc.

5. **Cutters** are double-banked, square-sterned boats, smaller than launches, pulling ten or twelve oars, according to size. They are used as running-boats and for ship's general duties and are fitted either with sunken or swivel-rowlocks. Their sailing rig is the sliding-gunter, either with or without jib. They are frequently fitted to carry a light rapid-fire or machine gun in the bow. These boats are particularly adapted to port duty of every description.

6. **Whaleboats** are double-ended and, according to size, are single- or double-banked, pulling six or twelve oars, respectively. They are used as running-boats and for ship's general duties of a lighter character than that assigned to launches and cutters. They are fitted with swivel-rowlocks. Their sailing rig is the sliding-gunter frequently without jib. In port they are steered with a rudder, but at sea are fitted with a steering-oar passed through a crutch (or steering-rowlock) on the quarter. These boats are therefore particularly adapted for use at sea and are generally used as life-boats.

7. **Dinghies** are small handy boats, shaped like cutters, single-banked with four oars. They are used as market-boats, or for light rough work, or ship's light duties. Owing to the small crew required, they are particularly convenient for nearly any light work in port. They carry sails and are usually sprit-rigged.

8. **Wherries** are light handy boats for officers' use. They can be pulled by one man.

9. **Punts** are rectangular, flat-bottomed boats, intended for painting and general cleaning around the ship's water-line. They are fitted with rowlocks on each side, but are usually propelled by sculling.

10. **Catamarans (or balsas)** are platforms secured to two hollow floats. They are used for the same purpose as punts, but are less handy. They are really carried on account of their demonstrated value in case of shipwreck. They are fitted with swivel-rowlocks and oars, but are usually sculled. Life-rafts of various designs are sometimes carried, but no regulation type has been adopted.

11. Boats in the Navy driven by power other than steam are classified as follows:

- (1) The barge of a flag officer as a "motor barge."
- (2) Service type launches built for heavy duty, and speed and semi-speed boats as "motor boats."
- (3) Sailing launches with auxiliary engines as "motor-sailing launches."
- (4) Double-ended power boats, whaleboat type, as "motor whaleboats,"
- (5) Power dinghies as "motor dinghies."
- (6) Power dories as "motor dories."

## NOMENCLATURE.

12. The following are the authorized names of the various parts of a naval boat :

*Backboard*.—The thwartship board immediately forward of the coxswain's box, placed across the stern-sheets of the boat to support the backs of the occupants.

*Bilge*.—The flat part of a boat's bottom, on each side of the keel, on which the boat would rest if aground. The bilge extends out to where the frames turn upward, which part is known as the "turn of the bilge."

*Blade*.—The broad flattened part of an oar.

*Boom*.—The long pole or spar used to extend the foot of a fore-and-aft sail, for example, main-boom, jib-boom.

*Bottom-boards*.—The fore-and-aft strips secured to the frames, forming the floor of the boat.

*Brails*.—The lines used for hauling the clew of a fore-and-aft sail up to the masthead. They are secured to the clew of the sail, lead up through leaders at the masthead, thence down into the boat.

*Clew* (of a sail).—The lower after-corner of a fore-and-aft sail.

*Dead-wood*.—A body of timber built on top of the keel at either end of the boat to afford a firm fastening for the cant-frames.

*Frames*.—The ribs of the boat;—curved timbers secured to the keel and extending upward to the gunwale.

*Fore-sheets*.—The portion of the boat forward of the foremost thwart.

*Gaff*.—A spar used to extend the upper edge of a quadrilateral fore-and-aft sail.

*Gooseneck*.—A sort of iron hook, fitted to the inner end of main-boom, used for securing the latter to the mainmast. It permits free movement of the boom in any direction, with the gooseneck as a center.

*Gripes*.—Boat-gripes are made of sennit or canvas and go around the bottom of the boat in securing a boat for sea, those for life-boats being usually fitted with a slip-hook. Boat-gripes for steamers and sailing-launches are often made of chain, have a hook or clamp on the rail and then secured to the deck by turnbuckles.

*Gudgeons*.—Small metal fittings, similar to eye-bolts, secured to the stern-post of a boat for the rudder to hang on. They receive the pintles and thus support the rudder.

*Halliards*.—Lines used to hoist and lower topmasts or jib. Also those used to hoist or lower the gaff of a sloop.

*Handle* (of an oar).—The small part of an oar, on the inboard end of the loom, which the oarsman grasps when pulling.

*Head of sail.*—The upper corner of a triangular sail. The upper edge of a quadrilateral sail.

*Heel of mast.*—The lower part of the boat's mast; the end of the mast which fits in the step on the keel.

*Keel.*—The principal timber of a boat, extending from stem to stern at the bottom, and supporting the whole frame.

*Leather.*—The portion of an oar which rests in the rowlock. This is sometimes covered with canvas, but is usually covered with leather, hence the name.

*Loom.*—The portion of an oar extending from blade to handle.

*Lug-rig.*—Applied to large quadrilateral sails bent to a yard that hangs obliquely to the mast; the halliards being secured nearer to one end of the yard than the other.

*Main-boom.*—The boom on the mainmast which spreads the foot of the mainsail.

*Oars.*—Long wooden implements for propelling boats by pulling. Oars consist of blade, loom and handle.

*Painter.*—A rope, secured in the bow, for towing or for securing the boat.

*Peak.*—The upper after corner of a quadrilateral fore-and-aft sail.

*Pintles.*—Small straight pieces of metal secured to the rudder and fitting in the gudgeons on the stern-post, thus supporting the rudder. In some boats the pintle is a long erect pin on the stern-post fitting in rings or gudgeons on the rudder.

*Plug.*—The stopper which is placed in the drain-hole when the boat is lowered. It should be secured in the boat by a small lanyard.

*Rising.*—The narrow fore-and-aft strakes inside of a boat, secured to the frames on which the thwarts rest.

*Rowlocks.*—Forked pieces of metal in which the leather of oars rest while pulling. Sunken rowlocks are those which are set down into the gunwale of the boat. Swivel rowlocks are movable, a pin on the rowlock fitting in a socket in the gunwale.

*Rudder.*—A flat plank hung abaft the stern-post by means of gudgeons and pintles, used for steering a boat.

*Sheer.*—The rise of the longitudinal lines of a boat from the horizontal plane, as seen in looking along a boat's side. The curve of the gunwale when compared with the straight water-line.

*Sheer-strake.*—The upper strake of the boat.

*Sheet.*—The lines secured to the clew of a sail, or to the main-boom, used to set the sail and hold it in position.

*Shrouds.*—Lines leading from the masthead to a boat's rail. They support the mast on each side.

*Sliding-gunter rig.*—A rig for boats in which a sliding topmast is used to extend a triangular sail. As used in the Navy, it consists of two triangular sails (fore- and mainsail) and usually a jib. The mainsail is fitted with a main-boom.

*Sloop-rig*.—Consists of a large fore-and-aft quadrilateral sail with gaff and boom, also a jib and jib-boom.

*Sprit-rig*.—Consists of a single mast carrying a large quadrilateral sail, the peak of which is held out by a light movable wooden boom, called a sprit, which, when in place, extends from the peak of the sail to a stirrup on the lower part of the mast.

*Stem*.—The up-turned portion of the keel, at the bow of the boat, to which the forward ends of the planks are secured.

*Step of mast*.—A small metal receptacle on the keel in which the heel of the mast rests.

*Steering-rowlock*.—A peculiar form of swivel-rowlock, fitted near the stern of a whale-boat, in which the steering-oar is shipped. This is sometimes called a crutch.

*Stern-fast*.—A stern painter for use in securing the stern of a boat.

*Stern-post*.—The principal piece of timber in a boat's stern-frame. It is a continuation of the keel at the after part of the boat.

*Stern-sheets*.—The space in the boat abaft the thwarts.

*Strakes*.—Continuous lines of fore-and-aft planking. Each line of planking is known as a strake.

*Stretcher*.—Athwartship, movable pieces against which the oarsmen brace their feet in pulling.

*Strong-back*.—The spar lashed to the two davits on which a boat is hoisted.

*Tack*.—The forward, lower corner of a fore-and-aft sail.

*Thrum-mats*.—Mats made of a small piece of canvas with short strands of rope-yarn sewed on it—called thrumming. These are placed between the rowlocks and the oars to prevent noise in pulling.

*Thwarts*.—The seats on which the oarsmen sit.

*Throat*.—The forward upper corner of a quadrilateral fore-and-aft sail. Also called the nock.

*Tiller*.—A bar or lever, fitted fore-and-aft in the rudder head by which the rudder is moved.

*Trailing-lines*.—Small lines secured to the boat and around the oars to prevent the latter from getting adrift when trailed.

*Yoke*.—Athwartship piece fitting over the rudder head, and by which rudder is moved when the tiller is not shipped.

*Yoke-lanyards*.—Small lines attached to or rove through the ends of the yoke for use in steering when the yoke is shipped.



# PART II

## BOAT-GEAR AND EQUIPMENT.

### BOAT-GEAR.

#### Pulling-Boat.

13. (1) The following boat-gear will be carried by pulling-boats at all times, except when special circumstances render it undesirable :

1. Anchor, with chain, or line, bent and ready for use.
2. Boat-painter. .
3. Stern-fast.
4. One complete set of oars. If swivel-rowlocks, which do not permit tossing, are used, each oar must be fitted with a trailing-line.
5. Spare oars for one thwart (fitted with trailing-line if the above-described rowlocks are used).
6. Three boat-hooks, except dinghies and wherries, two.
7. Masts, spars, sails and rigging in spar-cover complete, ready for use.
8. Awnings and stanchions, if climatic conditions demand.
9. Boat-bucket for bailing and for general use.
10. Breaker with 2 days' good drinking-water for crew.
11. One set of stretchers complete.
12. A canvas bag containing one boat ensign and staff, a two-foot red wigwag signal-flag and staff, one answering pennant and staff, one boat distinguishing flag and staff, and in the case of gigs, a captain's pennant and staff.
13. Boat-compass.
14. Tarpaulin.
15. Boat-box.
16. Tin-box with cover for cleaning-gear.
17. Key to boat-box.
18. Rudder and tiller, each fitted with a light lanyard.
19. Plug, secured to keel by a good lanyard.
20. One set of rowlocks, and two spare ones (if swivel-rowlocks are used), each fitted with a short lanyard.
21. One set of boat-fenders, fitted with lanyards.
22. Two hand-grapnels fitted with chain and rope.
23. A lantern, trimmed, filled, and ready for lighting, as required at night by "Rules of the Road."
24. Binoculars, if supplied, will always form a part of an officer's equipment when on a boat expedition or at tactical drill.
25. In addition to the above articles, every boat (except life-boats in use as such) leaving a ship at sea will be provided with rifles and cartridges.

(2) When the ship is at sea, the following additional articles will be carried in boats:

(a) 1 box of bread.

(b) 1 box of meat.

(c) If whaleboat, one crutch and steering-oar.

(3) On arrival in port, bread and meat will be removed and sent to the storeroom. The compass, unless secured in boat, will habitually be kept in the navigator's storeroom, when the boat is not in the water. The remainder of the boat-gear will habitually be kept in the boat. Water in breakers will be renewed from time to time, to keep it palatable and healthful.

NOTE—Some of the above articles are frequently carried in the boat-box, and when room in the boat-box permits this is preferable.

### Steamers and Motor Boats.

14. The following articles form the complete equipment of a steamer, and will be carried at all times except when special circumstances render it undesirable:

1. Anchor, with chain, or line, bent and ready for use.
2. Boat-painter.
3. Stern-fast.
4. Two oars, with rowlocks, or grommets and thole-pins.
5. Three boat-hooks.
6. Boat-bucket.
7. Breaker, filled with drinking-water.
8. A canvas bag containing a boat ensign and staff, a two-foot red wigwag flag and staff, one answering pennant and staff, one boat distinguishing flag and staff, and, in case of a special boat, appropriate flag or pennant and staff.
9. Boat-compass.
10. Tarpaulin.
11. Boat-box complete.
12. Tin-box with cover for cleaning-gear.
13. Key to boat-box.
14. Puddings or fenders.
15. If special boat, flag or pennant for officer carried.
16. Cushions and cushion-covers.
17. Necessary fuel, lubricating oil, water, etc.
18. Lantern, trimmed, filled, and ready for lighting.
19. Necessary implements for service of engines.
20. Two hand-grapnels, fitted with chain and rope.
21. Two small circular life-buoys, one aft and one forward neatly secured to canopy, about 15 inches in diameter (internal).
22. Additional life-buoys in the stern-sheets.
23. Running lights as required by "Rules of the Road."

## Motor Sailing Launches, Motor Whaleboats, Motor Dinghies, and Motor Dories.

14a. These vessels will carry the following equipment at all times, except when special circumstances render it undesirable:

1. All equipment carried by pulling boats of a similar type.
2. Running lights, as required by "Rules of the Road."
3. Fuel.
4. Necessary tools for service of engine.

### BOAT-BOX.

15. The boat-box shall be watertight, as small as possible, and arranged to go under the thwarts without difficulty. It should be provided with a lock and key, and the boat will never leave the ship without the latter. It shall contain the following articles:

- |   |  |
|---|--|
| 1. Axe.   | 16. Tacks.   |
| 2. Hatchet.   | 17. Sheet-lead.  |
| 3. Hand-saw.  | 18. Two pounds of $\frac{1}{8}$ -inch wire seizing.                                    |
| 4. Hammer.  | 19. Lamp-wick.   |
| 5. Screw-driver.  | 20. Spun-yarn.   |
| 6. Cold-chisel.   | 21. Sail-twine.  |
| 7. Boat calking-iron.   | 22. Fishing-lines, hooks and sinkers.  |
| 8. Giant tool-handle.   | 23. Lead and line, first two fathoms marked in feet.                                   |
| 9. One pair of cutting-pliers, large size.  | 24. One pound of tallow.   |
| 10. One brace, with $\frac{1}{4}$ -, $\frac{1}{2}$ -, $\frac{3}{4}$ -, and 1-inch bits. | 25. Six candles.   |
| 11. Marlinespike.   | 26. Safety-matches in hermetically sealed box, or large-mouthed bottle with screw-top. |
| 12. Palm.   |  |
| 13. Sail-needles.   |  |
| 14. Assorted wire-nails.  |  |
| 15. Assorted screws.  |  |

15a. The following articles will be assigned to each boat. They will be kept in a designated place on board ship, and placed in the boat only when required for drill or service.

(1) One small medical emergency box, containing the following articles and directions for giving medicines:

Antiseptic-tablets (bichloride mercury) . . . . .	Bottle 1	Lint . . . . .	Yards 2
Bandages . . . . .	6	Mustard-plasters . . . . .	Box 1
Beef, extract . . . . .	Bottle 1	Packages, first-aid . . . . .	6
Calomel, tablets . . . . .	Bottle 1	Plaster, rubber . . . . .	Roll 1
Cathartic-tablets, compound . . . . .	Bottle 1	Quinine pills (3-grain) . . . . .	Bottle 1
Diarrhœa and Cholera tablets . . . . .	Bottle 1	Soda, bicarbonate . . . . .	Can 1
Lead- and opium-tablets . . . . .	Bottle 1	Tourniquets, field . . . . .	3
		Tourniquets, rubber . . . . .	2
		Vaseline, carbolized . . . . .	Jar 1
		Whiskey . . . . .	Bottle 1

(2) One set of arm curtains with fittings complete.

35. Oil lantern, with shutter for signalling, provided with wicks and ready for filling. If lantern is not fitted with shutter, it will be provided with a canvas screen. When it is lighted and not in use it will be carried in the boat-bucket.

36. One bottle of illuminating-oil.

37. Boat-Book or Boat-Code. (See Introduction.)

### COOKING-UTENSILS.

16. These are supplied only when required. For example, at abandon-ship they are undesirable complications, excepting a kettle and mess-gear. Boat expeditions may or may not require them, depending upon the nature of the service.

17. Complete cooking-outfit for boat expeditions, when it is expected to do cooking in the boat, would consist of:

(1) Boat-stove. These boat-stoves are supplied to sailing-launches, and one stove to each vessel not carrying a sailing-launch. If boat-stoves are not supplied, a galvanized iron bucket, or pan, filled with sand, can be used as a substitute.

(2) Fuel.

(3) Iron mess-kettle and frying-pan.

(4) Mess-gear. At least 6 plates, 6 knives, 6 forks, 6 spoons, 6 cups or bowls.

18. (1) If cooking in the boat is anticipated, additional portions of the ration, such as butter, salt, pepper, sugar, coffee, etc., would be necessary.

(2) These can be most expeditiously supplied by the man who provides mess-gear, if they are to be supplied in small quantities. If providing for a considerable force ashore, the amounts of each shall be carefully determined, and provided by the commissariat.

(3) In actually abandoning ship, the man providing mess-gear should provide a small amount of these items, if landing is probable, since, though no cooking will be done in the boat, they might be necessary on shore.

### PROVISIONS.

19. (1) The amount of provisions carried under various circumstances will depend upon the probable length of service, and the probable requirements of the expedition.

(2) Bread will be carried in watertight tins. These should be supplied in wooden boxes, in order to preserve the tins intact.

(3) Fresh water is carried in breakers, not to contain more than 20 gallons each.

(4) Canned meats, carried in wooden boxes in which it is shipped.

(5) Coffee, tea, sugar, and salt, if for a small expedition, are carried in small waterproof packages; if provided by the com-

missariat for a considerable body of men, in the original cases in which received on board ship.

(6) Other portions of the ration will be carried in actual service, when time and circumstances permit.

**20. (1) When men leave the ship in considerable force**, or for a longer period than two days, the commissary-officer will ration them, arranging all details; but in actual expeditions men who leave the ship ahead of the commissariat shall carry the emergency-ration and the regular ration will be forwarded later. See Arts. 20, par. 4, and 72, par. 5.

(2) The following is suggested as a basis per 100 rations to be supplied by the commissariat:

Article.	100 rations.
Bread (hard or soft).....	100 pounds.
Corned-beef (canned) .....	75 "
Baked-beans (canned) .....	45 "
Coffee (roasted and ground) .....	8 "
Sugar (granulated) .....	15 "
Tomatoes (canned) .....	100 "
Salt (table) .....	2 "
Pepper (black) .....	4 ounces.

(3) In calculating the amount of provisions to be carried in a boat, at abandon-ship, one ration will consist of 1 pound of hard bread,  $\frac{3}{4}$  pound of canned-meat, and  $\frac{1}{2}$  gallon of water. After calculating by this rule the amount of provisions necessary for the required three days, take the number of boxes or breakers most closely approaching this amount. In actual abandoning ship, boats will carry as many provisions as possible with safety.

(4) **For short expeditions** (not over two days' duration) special commissary arrangements will be unnecessary. Each man will be provided with the emergency-ration, consisting of hard bread, 20 oz.; corned- or roast-beef, one 2-lb. can; sugar, 8 oz.; ground coffee, 4 oz.; the last two items in small bags. This ration is carried in the haversack. Each man will carry a canteen filled with water, and in addition each boat will carry at least 2 days' water ( $\frac{1}{2}$  gal. per day) for each man in the boat.

### HOSPITAL-BOAT.

**21. (1) The boat with the ambulance party** will carry the medical officer and a large medicine-chest containing stimulants and medicines. Each article will be labelled in English, and distinctly marked with directions for administering and quantity of dose, in terms that any one can understand. The medical officer will also carry a set of surgical instruments, stretchers, and other necessary surgical conveniences.

(2) The hospital-boat will carry no arms whatever, and will fly a red-cross flag on a staff in the bow.



**ARTILLERY-BOATS.****22. (1) If gun is to be used in boat only:**

- (a) Boat-gun mount complete, secured to deck-plate.
- (b) Boat-gun, with all implements for service of the gun.
- (c) Box of accessories and spare parts.
- (d) Ammunition.

In short, the same supplies should be provided as are required for the service of the gun on board ship.

**(2) If gun is to be landed:**

- (a) Field-carriage, with all implements for service of the gun.
- (b) Shifting-spar, grommet and lashing, and skids or other means for landing the gun.
- (c) Haversack for landing armorer's tools, also accessories, spare parts and all articles necessary for the service of the gun.
- (d) Ammunition.

(3) If gun is to be used both in the boat and on shore, both the boat-mount and field-carriage will be provided, and accessories, spare parts, etc., as above enumerated.

(4) The equipment of the artillery-boat for drill will be in all respects the same as if the gun were actually to be fired.

**AMMUNITION.**

**23. (1) Ammunition will be carried in the chests in which supplied.** The amount will be specified in every case, and will depend upon the nature of the service.

(2) The following is the minimum amount to be supplied:

- (a) *3-inch field gun*: Filled ammunition-boxes (32 rounds).
- (b) *1-pdr. R. F.*: Filled ammunition-box (60 rounds).
- (c) *Gatling or Colt*: 1000 rounds.
- (d) *Rifle*: 100 rounds for each rifle.
- (e) *Pistol*: 48 rounds for each pistol.

**SENIOR-OFFICER'S BOAT.**

**24. The boat conveying the commander of the expedition shall carry the following additional articles:**

(1) One set of signals complete. The distinguishing-number for each boat is its numeral-flag or flags displayed under the ship's distinguishing-pennant.

(2) One set of Very's night-signals, and at least six rockets.

(3) Attention is invited to Art. 80, (5).

## PART III

### LIFE-BOATS.

#### AT SEA AND IN PORT.

**25. At sea.**—(1) When at sea, every ship shall at all times keep on each side, ready for lowering, a boat which is best adapted as a life-boat.

(2) At the beginning of every watch at sea, the officer-of-the-deck shall have the life-boat crew of the watch mustered abreast the lee boat, and the coxswain of the life-boat crew of that watch shall satisfy himself by personal inspection that *both* life-boats are ready for lowering, and shall report the fact to the officer-of-the-deck.

**26. A life-boat is secured for sea, *i. e.*, ready for lowering,** when in the following condition: Boat at the davits, griped in, falls clear, detaching apparatus ready for detaching at the word, steering-oar shipped in crutch, oars fitted with trailing-lines and ready for getting out quickly, rowlocks shipped and fitted with lanyards, plug in, sea-painter half-hitched around forward thwart, life-lines bent to span, life-belts in boat, lantern filled and trimmed (and at night, lighted), and all other articles of the boat-equipment in the boat and ready for use, with two days' water and provisions for the crew. When the coxswain of the life-boat crew of the watch reports a life-boat ready for lowering, it is understood that the boat is in the above condition and that the crew of the watch have been mustered, each man abreast his own thwart (or station) of the lee boat, and that each man understands his duties at "Man-overboard." In lowering, the officer or coxswain in charge of the life-boat will give the command for detaching.

**27. In port.**—(1) The U. S. Navy Regulations require that "In port, one or both life-boats shall be kept ready for immediate use from sunset until colors the next morning;" hence when there is no suitable boat in the water ready for immediate use as a life-boat, at least one boat suitable for this purpose must be kept ready for instant lowering. This is particularly necessary when the boats which are in the water are heavy and unwieldy, or are so secured that they could not be quickly used in an emergency, or in rough weather, or in a strong tideway. The officer-of-the-deck shall require the coxswain of each life-boat to report to him, each day at sunset, the condition of his boat as regards readiness for service. If the regularly designated life-boats for port service are reported as not being available for use, he will at once take steps to provide another boat for this duty.

(2) In port, the regular crews of the designated life-boats will act as life-boat crews from "turn to" in the morning watch until 9.00 p. m.; from 9.00 p. m. until turn to in the morning watch, the anchor-watch will be the life-boat crew, and when mustered the men shall be assigned their stations. The petty-officer of the anchor-watch will report that the crew have been stationed and that the life-boat is ready for use.

(3) Owing to its handiness, a dinghy is well suited for use as a life-boat in port in good weather, and under such conditions it may be designated as the life-boat for port service. The boats designated for use as life-boats in port are required to carry only the usual equipment for boats in port, but the gear must be in order and ready for instant use, and the lantern must be ready in the boat for lighting, or else a lighted lantern ready for use must be kept at hand on deck.

### Notes on Life-Boats.

28. (1) Life-boats should be gripped securely against their strongbacks, with chafing-pads between the boat and the strongbacks; and the gripes, secured either by toggle or pelican hook, ready for instant freeing.

(2) If gripes stretch and become slack, they should be set up taut.

(3) At night, boat-falls should be coiled down on deck, clear for running; during the day the coils may be triced up to davit with becket and toggle.

(4) The sea-painter is led from a point well forward on the ship, outside of everything, and secured to the inboard side of the forward thwart in such a manner that it can be readily cast off; if necessary it is stopped up out of the water by a rope-yarn.

(5) The knotted life-lines, one for each member of the crew, hang from the span for the use of the crew in case of accident in lowering or hoisting.

(6) An axe or hatchet should be kept at hand, ready for instant use in case of a jam while lowering.

(7) The life-belts should be placed, one under each thwart, and one under the stern-sheets, and each man in the life-boat will put on a belt before the boat is lowered. This is necessary because of the danger of the boat swamping alongside in rough weather.

(8) If the lantern is not provided with a shutter, it will be fitted with a canvas screen, and when lighted and not in use will be put in the boat-bucket.

(9) Life-boat crews for each watch are designated on the ship's station-bill. When a life-boat crew is mustered, the men will muster in line abreast their boat (or the lee boat), in the order of their thwarts, facing inboard; men stationed to lower will be abreast their respective davits, and will personally see that the falls are clear.

(10) The proper members of the crew will be permanently stationed for unhooking the falls, tending the sea-painter and for performing other duties in connection with lowering. The life-boat crew of the watch, including the men stationed for lowering, for observing the man, for signalling, etc., are not to go below the upper deck without permission, except for meals.

(11) At night the life-boat crew of the watch, and other men stationed in connection therewith, will remain near their stations.

### **LOWERING A LIFE-BOAT (Or Other Boat) AT SEA IN BAD WEATHER (With Wind and Sea Forward of the Beam).**

29. (1) At the call "Man-overboard" (which may be given by word of mouth or sounded on the bugle), every member of the life-boat crew of the watch goes to his station on the *run*. The lee life-boat should be manned. If there is any doubt about which boat is to be lowered, the officer of the deck immediately indicates it by the command, "Clear away the starboard (or port) life-boat."

(2) The men take their seats on the thwarts; each man immediately puts on a life-belt, gets his oar ready, and then, if not otherwise engaged, seizes a life-line as a safety precaution in case of accident.

(3) If there is not a good lee, the officer-of-the-deck will make one by altering the course of the ship. It is customary to bring the sea a little on the bow, but in this position the lee for the boat is far from perfect, as the ship will roll and pitch considerably, and the waves wash along the lee side. Some seamen prefer to bring the sea on the quarter rather than on the bow, while others advise lying in the trough of the sea, notwithstanding the heavy rolling. The best position will doubtless depend upon the build and trim of the ship, and the nature of the sea.

(4) Oil should be used in any case, both ahead and astern of the boat.

(5) The ship should be kept moving slowly ahead. A sea-painter, from well forward, should be brought into the boat through the inboard, bow rowlock, and a turn taken around the inboard end of the forward thwart.

(6) To keep the boat from swinging, frapping-lines may be passed around the falls, the ends leading inboard, to hold the boat close in to the side as it is lowered. In some ships jackstays with traveling lizards are fitted from the davit-heads to the side of the ship. A turn of the lizard is taken under a thwart, or around the standing part of the fall, and the boat is held near the side, as by the frapping-lines above described. Under no circumstances should the lizard be secured to the boat so that it could jam; the end must be held in the hand.

(7) The great danger, both in lowering and immediately afterwards, is that the boat will be dashed against the ship's side. A

sea-painter brought in on the inner bow of the boat, as already described, helps to sheer her off as she strikes the water. The coxswain sheers the bow out by throwing the *stern in* with the steering-oar as the boat strikes the water.

(8) The after fall is always unhooked first.

(9) Under no circumstances, short of the most imperative necessity, should a boat be lowered while the ship has sternway, and it is always *desirable* to have a little headway. There is much difference of opinion as to the speed at which it is safe to lower a boat—an important question in picking up a man overboard. Many officers having seen boats lowered without accidents at speeds as high as eight and ten knots, maintain that it is perfectly safe to lower at this speed. A more conservative view fixes the maximum at something like half this speed. It is safe to say that there is far less danger at five knots than ten, and most practical men would prefer to wait a little longer rather than to take the chance of having to deal with a whole boat-crew in the water.

(10) When all is ready the officer-of-the-deck, or the officer in charge of the lowering, commands LOWER AWAY TOGETHER! The bow and stroke oars tend the falls to keep them clear and to keep the blocks from striking other members of the crew when let go. In case the tumbler-hook is used, these men grasp the tumbler-lanyard, and as soon as the boat is water-borne, unhook the fall, in case it is not unhooked automatically. Should the boat not be supplied with detaching apparatus, these men unhook the boat-falls—the *after fall first*—as soon as possible after the boat touches the water. Men in the waist thwarts hold the boat off, if the ship is rolling. The second bowman tends the sea-painter, which is hauled taut and brought in through the inboard bow rowlock before lowering. He takes a turn with the painter around the thwart, holding the end in his hand. It should never be made fast.

(11) In lowering a boat the falls must invariably be lowered together, and in rough weather smart lowering may be required.

(12) If the boat is held in by lizards traveling on jackstays, or by frapping-lines around the falls, some of the men in the waist should breast the boat off the ship's side with the boat-hooks.

(13) Have an axe or hatchet handy in case anything should jam at a critical time.

(14) When the boat is a short distance from the water, the officer of the boat, or in his absence the coxswain, lets go the detaching apparatus, or gives the command LET GO! If the boat is not fitted with detaching apparatus, as soon as boat is water-borne, the boat-officer or coxswain commands LET GO THE AFTER FALL!, then, LET GO THE FORWARD FALL! The coxswain gives the boat a sheer out. The greatest danger occurs at this instant, as there is always a danger of the boat being dashed against the ship's side. For that reason the coxswain should give the *stern a*



*sheer in*, to get the *bow out*. The strain on the sea-painter assists to sheer the bow out. When clear of the ship's side, the officer or coxswain directs the second bowman to cast off the sea-painter; thwartmen get out their oars as soon as possible, and the boat makes the best of her way to the rescue.

### HOISTING A LIFE-BOAT (OR OTHER BOAT) IN A SEAWAY.

30. (1) The same general principles of seamanship apply as in lowering. It is preferable for a ship to have a little headway on, in case she is under way. The important point is to keep the boat off the ship's side to prevent it being injured.

(2) The boat comes alongside, a lee having been made for her, and in case of a heavy sea, oil should be used freely. Oars are boated, before getting alongside, as soon as possible after receiving the sea-painter, which should always be hove to her.

(3) The bowman seizes the sea-painter and takes a turn around the forward thwart. The boat should then be hauled under the davits by manning the sea-painter on deck.

(4) Tend the ship's helm carefully to retain a lee.

(5) Frapping-lines, traveling lizards, etc., will, if necessary, be used as in lowering. Similarly, thwartmen will, by the use of boat-hooks, keep the boat from swinging against the ship's side.

(6) If the ship has considerable way on, a line should be led from the stern of the boat to a point well aft on the ship, to prevent the boat from lurching forward when she leaves the water.

(7) The boat-falls should be well overhauled, led along the deck so that the men have a clear hauling space, and *they must be well manned*. The boat should never have to wait for preparations on deck.

(8) All being ready on deck, stand by, wait for a smooth time, hook forward, then aft, haul taut, hoist away. Men should run away with the falls as the ship rolls toward the boat, which should be run up quickly but steadily. If the winch is used, the falls should be taken around the barrel, which should be turning at the desired speed before the order *Haul taut!* is given.

(9) Boats fitted with automatic releasing-hooks should have their falls rove off in one, single leaders at the davit-heads, and the blocks must be of sufficient size to permit the falls to render easily.

### A METHOD OF PICKING UP A MAN OVERBOARD (Particularly With Wind and Sea Aft the Beam).

31. (1) The following method of picking up a man, in good, moderate or rough weather, with a quick-turning steamer, commends itself to many seamen.

(2) At the call, "Man-overboard," ascertain the position of the man, put the helm hard over, away from him, and handle the

engines so as to make a short turn without stopping. If possible, stop the engine on the side on which the man falls.

(3) As the ship turns, clear away and man the life-boat which is to be lowered, at the same time keeping a good watch on the man; his approximate position will be marked by the life-buoy. As the ship approaches the man, toward the end of the turn, maneuver her so as to bring her just to windward of him, and slow the engines so that she will not have too much speed for lowering when she reaches this position. Lower and let go with such precautions as wind and sea demand; stop the ship and prepare for hoisting.

(4) **The advantages of this method are:**

(a) That the boat may be dropped near the man, so that the coxswain can steer straight for him without being signalled to;

(b) That there is plenty of time to get the boat ready for lowering, and consequently less risk due to haste;

(c) That the boat has a short leeward pull to the man, and while the interval before the boat is in the water may be longer, the interval before she reaches the man would generally be shorter;

(d) That the officer-of-the-deck has better control for regulating the speed at which he is to lower the boat; and

(e) That, the interval between the alarm and lowering the boat being greater, there is less chance of accident from excitement and confusion.

(f) That, by going ahead after the boat has been lowered, the boat will have a pull to leeward after picking up the man.

### LIFE-BUOYS.

32. (1) In connection with "Man-overboard," attention is invited to the regulations concerning life-buoys.

(2) The Navy Regulations require that at all times at sea, and where anchored in a strong tideway in port, an efficient person be stationed to let go the life-buoy. Except in small ships, one man is usually detailed for each life-buoy. These men also act as look-outs, and it is important that they clearly understand their duties.

(3) Men on this post must realize that should a man fall overboard, his life will depend largely upon the intelligence and alacrity with which they perform their duty. They must, therefore, know (a) *how* to let go the life-buoy; and (b) *when* to let it go.

(4) Ordinarily life-buoys are let go by pulling a toggle, which releases the buoy, allowing it to fall in the water. Should it not fall of its own accord, it is probable that a slight blow will cause it to do so. The men on that post should, however, understand how to cause it to drop in case the toggle carries away, the mechanism jams or the buoy fails to fall through any cause. They must, above all, understand *that the buoy must be dropped imme-*



*diately in some way*, and that it is insufficient for them to simply make a routine effort to drop it, and then report that they cannot do so. To familiarize the men on this post with the operation of the life-buoy, it is well to have them present occasionally when the gunner tests the life-buoys in making preparations for sea.

(5) The question as to *when* to let the life-buoy go requires intelligence and composure. A cool, intelligent lookout will let the buoy drop within a few feet of the man overboard, while if somewhat excited, or if he does not clearly understand his duties, he may drop it long before the man is abreast the buoy, or long after he has passed.

(6) At the call "Man-overboard," the life-buoy lookout should endeavor instantly to ascertain the side on which the man fell and to *get sight of him*. Then drop the buoy as soon as possible *after* the man is abreast the buoy, so that it will be between him and the ship, toward which he naturally faces and swims.

(7) If the man cannot be seen, the lookout can usually determine the side on which he fell, as he will see many of the people about decks go to that side. Then, to avoid the possibility of dropping the life-buoy on the man (instances are recorded where men have thus been killed) the opposite buoy should be dropped when judged to be abreast the man in the water.

(8) If the man is sighted after the first buoy is dropped, and it is then seen that the second buoy can be dropped nearer to him, it should be let go; but as a general rule, the second buoy should be kept fast (unless it is really necessary) for use in case men fall overboard in lowering or hoisting the life-boat.

(9) The man in the water should swim to the life-buoy and await the life-boat. Life-buoys should be dropped frequently when the crew are in swimming, in order to familiarize the men with their use.

(10) The above instructions are for the guidance of the life-buoy lookout in case he hears no orders and must, therefore, act upon his own initiative. He will, of course, strictly and promptly obey any commands that he may receive from proper authority, regardless of the above instructions; but as the life-buoy, to be of use, must be dropped promptly, the lookout must clearly understand that if no orders have been received by the time it is necessary to drop it (as indicated above), he must drop it at once.

(11) Modern vessels are so large, and life-buoys so far removed from the officer of the deck, that it is important that the life-buoy lookouts clearly understand the above general principles, and then, in the absence of orders, that they be governed by their common-sense.

(12) After dropping the buoy, the lookouts should keep the man in sight until the persons specially detailed for this purpose reach their station in the after rigging, and get the bearing from

the life-buoy men. If one lookout is attending both buoys, it would be unwise for him to leave his station to go into the after rigging as a lookout, but if there are two life-buoy lookouts, each may be permanently stationed to go in the rigging and keep a lookout on the man after his own buoy has been let go.

### SIGNALS FOR LIFE-BOATS.

33. (1) **Signalmen**, previously detailed, man the rigging and keep their eyes on the man in the water. Signals hoisted at a yard-arm indicate the direction the boat must pull. Numeral-flag (No. 3) indicates that the boat must pull to the right of the line from the ship to the boat. Numeral-flag (No. 1) indicates boat must pull to left of line from ship to boat. No. 2 indicates boat must pull straight away from ship. No. 0 indicates boat must pull straight toward ship.

(2) At night these same numbers, made on the electric night-signals, will be used; or, in the absence of a signal-set, Very's night-signals will be used, as follows: red star instead of No. 1; green star instead of No. 3; a bracket instead of No. 2; and a rocket instead of No. 0. At night the boat will acknowledge signals by flashing the lantern. During the day the above signals will be obeyed without answering.

(3) *If by night or in fog, mist or falling snow* in case of a man-overboard when underway and *in formation*, the ship will fire a signal gun and make a steady display of Z and sound Z on the fog whistle. All ships upon hearing the signal gun will repeat it and stop their engines and if in column formation all except the leaders of columns will change their course one point, unless in narrow waters, even numbered ships to port and odd numbered ships to starboard. In this position the ships are ready to back their engines if necessary. The two ships next astern of the one having "man overboard" will lower their boats and assist in the search. When the man has been picked up or the search abandoned, the "affirmative" will be displayed or sounded by each ship where boats have been lowered (except the flagship of the Commander-in-chief) to show when she is ready for steaming ahead. If in any other than a column formation all ships will stop at once and hold their course upon the gun being fired.

(4) *If by day* the Breakdown flag (N) will be broken and immediately half-masted, but not below the level of the top of the smokestacks; and ships will maneuver thereafter the same as at night.

# PART IV

## DRILLS AND EXERCISES.

### TACTICAL EXERCISES.

34. (1) For tactical purposes, the boats of each ship will be numbered consecutively, beginning with No. 1.

(2) These numbers will be assigned in succession beginning with the steamers (1st, 2d, 3d, etc.), then sailing-launches (1st, 2d, etc.), then cutters, whaleboats, barges, gigs, and dinghies, each in the order of their ship's numbers.

(3) These numbers (indicated by the corresponding numeral-flag or flags of the Navy Code) hoisted under the ship's distinguishing pennant, will be the boat's distinguishing-call.

(4) Each boat shall carry at drill a white distinguishing-flag in the bow.

(5) This flag shall be rectangular, 26 by 18 inches, with the ship's distinguishing-letter and the boat's number, painted upon it in black letters and figures, to read from staff to fly, and the staff to show 4 feet above the rail. Hospital-boats shall display the Geneva cross in the bow, instead of her boat-number, the dimensions of flag and staff being the same as prescribed for other boats.

35. (1) **Unequipped boats** are those carrying only the regular boat equipment, which is kept at all times in the boat. (See Art. 13.)

(2) **Equipped boats** are those which are equipped for landing in accordance with these instructions. They will always contain arms, ammunition, and the amount of provisions and water mentioned under Article 20, pars. 1 and 4, unless the commissariat actually accompanies the expedition, in which case only arms, ammunition, and filled canteens are required.

(3) A Ship's flotilla consists of the group of boats of each ship, and is so designated whether the group is for tactical exercises (equipped or unequipped), or for conveying the landing-force.

(4) A Division flotilla consists of the ship's flotillas of that tactical division, and is as large a number (four) of ship's flotillas as can be conveniently handled in tactical drills.

(5) A Squadron flotilla consists of the ship's flotillas of that tactical squadron. It may be formed and maneuvered as such to some extent, but ordinarily tactical drills cannot be carried out successfully by a larger group than a Division flotilla.

(6) A Fleet flotilla consists of all the ship's flotillas of the tactical fleet. It may be formed and maneuvered as such to some

extent, but ordinarily tactical drills cannot be carried out successfully by a larger group than a Division flotilla.

36. (1) **The flotillas** will be exercised as often as possible in tactical maneuvers. It is undesirable to exercise the flotillas at extensive tactical maneuvers when they are equipped for landing, though they should be frequently and thoroughly exercised, when so equipped, at actual landing and at the necessary tactical evolutions pertaining thereto.

(2) Tactical evolutions are chiefly for the training of the officers and coxswains (with a view to utilizing this training at some other time when the boats are equipped for landing) and hence tactical exercises can be carried out as advantageously with an unequipped as with an equipped boat.

(3) When boats are called away for exercise under sails or oars, no arms or equipments will be provided. The regular boat-gear will, however, be carried unless the nature of the exercise renders it desirable to leave some of it on board. When boats are called away for exercise as a flotilla or for landing, dinghies will not be required to go.

(4) When a preparatory signal for getting out boats is made, all preparations will be made on deck; davits rigged out and boats made ready for lowering.

(5) If the signal indicates that the exercise will be for equipped boats, all necessary articles are to be provided abreast the boats, but no article will be passed into a boat, nor will any boat be lowered, until the signal of execution is made.

(6) At the signal of execution (whether preceded by preparatory signal or not) all boats are to be lowered, equipped, manned, and formed as prescribed. If for equipped boats, preparations will be made as if preparing for some actual specified service in accordance with Article 72.

37. (1) **When the flotillas are called away for exercise**, the boats will first form in column, unless otherwise indicated, on the starboard side of their respective ships, the leading boat abreast the lower boom, in the following order: steam-launches, sailing-launches, cutters, whaleboats, gig. The battalion commander, in one of the steamers, will lead the column.

(2) When ready, the flotillas proceed to form where directed, as directed; the steamers towing the other boats of the flotilla; the order of the ship's flotillas being the same as the order of their ships in line, as prescribed for the squadron; at proper intervals between the ship's flotillas; distance between boats (from bow to stern) two boats' length, or less when the boats are in tow. Hospital-boats when present will be in the rear of their columns or lines.

(3) **A boat's length** in the above paragraph will, for the sake of uniformity, be taken as 40 feet. Distance will be two boats'

lengths, and half-distance one boat's length; all of the above distances are measured from stem to stern.

38. When tactical evolutions begin, the leaders of the ship's flotillas will open out if closed, until their intervals are the same as their distance apart in line, which will vary with the number of boats in each ship's flotilla.

39. (1) Being in any formation, to form for landing, first form "line of ship's flotillas" (or line of division or squadron flotillas) and head the line of columns toward the landing place. Then the formations described in *The Landing-Force and Small-Arm Instructions* will be assumed, steam- and sailing-launches with artillery casting off and assuming position on the flanks, while the main body of the column (boats carrying infantry) form line and head in towards the beach. If machine or small R. F. guns are carried in infantry boats, they will be used to sweep the beach from their position in the general line.

(2) If the boats of a single ship are called away for landing, they will form in column, in the above-mentioned order, as soon as they shove off from the ship, and will be taken in tow by the steamer. The tow then heads in perpendicular to the landing place, or as directed. In forming for attack, boats cast off and form line, artillery steamers and sailing-launches take position on the flanks and cross their fire, as described under instructions for landing.

(3) Being in tow, and preliminary to forming line for landing as described above, the leading steamer signals to the tow as follows:

- (a) *Three blasts*: Oars get ready and prepare to cast off.
- (b) *Two blasts*: Up or out oars.
- (c) *One blast*: Cast off and let fall.

40. (1) The flag-boat of a ship's flotilla, when exercising as a part of a flotilla, will lead its column. When the ship's flotilla is exercising independently it may either lead the column, or it may leave the formation and be free to take any position.

(2) Similarly, the flag-boat of a division flotilla or squadron flotilla may either lead the column, or it may leave the formation and take the position from which the flotilla can best be maneuvered.

(3) Flag-boats will, when possible, be steamers, except when boats are being exercised as a division under sail, in which case a sailing-launch or other boat may be used.

(4) For tactical drills, flag-boats should be fitted with signal masts and yards, and furnished with speed cones, 12 inches high and 8 inches in diameter at the base.

41. (1) Boat-drills shall not be confined to the seaman class, but shall, so far as possible, include all classes of enlisted men. Special attention shall be paid to elementary boat-exercises for



marines and the engineer-force, and they should be encouraged to become good oarsmen.

(2) **The landing-force** shall frequently be embarked and landed in the manner that would be required under service conditions. Mustering and equipping the force is not sufficient to develop or maintain the skill of the crew, or to develop or exercise in their proper duties the special details, staff officers, etc. Hence landing-exercises should be complete, thorough, and deliberate.

(3) Similarly, at abandon-ship it is always preferable actually to lower the boats and embark their crews, but as it is important that each man be kept constantly familiar with his principal duties at this evolution, it is preferable, in cases where lowering boats is impracticable, to provide articles and muster abreast the boats rather than omit the exercise entirely.

## ORDINARY SERVICE.

### BOATS UNDER OARS.

#### COMMANDS.

42. The commands given in Tables I and II below are prescribed to cover ordinary cases of a boat manned alongside, or at a landing, and thence making passage to a landing or to another vessel.

Table I.

1. STAND BY THE OARS!
2. SHOVE OFF!
3. OUT OARS!
4. GIVE WAY TOGETHER!
5. IN BOWS! or, TRAIL BOW!
6. OARS! followed by WAY ENOUGH! or WAY ENOUGH! without the command OARS!

Table II.

1. STAND BY THE OARS!
2. UP OARS!
- 1 and 2. Given before boat is reported ready.
3. SHOVE OFF!
4. LET FALL!
5. GIVE WAY TOGETHER!
6. IN BOWS!
7. STAND BY TO TOSS! TOSS! or, OARS! followed by WAY ENOUGH! or WAY ENOUGH! without the command OARS!

43. (1) The commands in Table I will always be used with single-banked boats. With these boats the oars will be in their places in rowlocks, blades in the water, and oar trailing fore-and-aft, before the boat is ready to receive passengers.

(2) With all boats having awnings spread. If the boat is double-banked, the oars will remain in the boat until the command OUT OARS! At the command STAND BY THE OARS! the most convenient thwartmen will cast off the awning-stops and secure them after the oars are out.

(3) With laden boats, working-boats, boats carrying visiting-parties, all pulling-boats at sea, or in rough weather in port, and with all pulling-boats after sunset.

44. In all other cases than those specified above, the commands in Table II will be used, in port or in smooth water, for double-banked boats having rowlocks that permit of "letting fall." For example, this table would be used for all double-banked running-boats, for all special boats carrying commissioned, warrant, or appointed officers, and, in general, on all occasions not excepted by notes under Table I (See Art. 43).



45.

Table III.

Special Commands	Purpose for which Given.
OARS! .....	(1) To stop pulling for any purpose, keeping the oars out. (2) To salute.
TRAIL! .....	(1) To salute. (2) To pass obstructions. For the latter, oars of either side may be trailed independently.
HOLD WATER! .....	To check headway or sternboard. The oars of either side may hold water independently. Requires care if boat has much headway.
STERN ALL! .....	To acquire sternboard. Should not be given when boat has much headway. When boat has headway, should be preceded by HOLD WATER!
BACK STARBOARD! (OR PORT).....	To turn. Should HOLD WATER! before backing, if boat has much headway.
BACK STARBOARD, GIVE WAY PORT! To ( or vice versa.)	turn quickly when boat has little or no headway.
STAND BY TO TOSS! TOSS!.....	(1) To salute. (2) In going alongside, when it is not desirable to boat the oars. The habitual command to be used when coming alongside with double-banked boats on official or dress occasions.
BOAT THE OARS!.....	To get the oars in the boat.
POINT THE OARS!.....	To shove off a grounded or beached boat.

NOTE.—Thwarts and oars are numbered from forward. Double-banked thwarts are designated by No. 1, starboard, No. 1, port; No. 2, starboard, No. 2, port; etc. The thwarts next to the bow and stroke are also properly designated as second bow and second stroke.

Explanation in Detail.

Ordinary Ship's Service which Permits Use of Commands Given in Table I.

46. Suppose a cutter manned at the gangway, bowmen standing in fore-sheets holding on with boat-hook to grab-ropes or jack-stay, oars boated. The coxswain has orders to shove off and go in for a working-party. The coxswain commands and the crew executes the details as follows:

(1) **STAND BY THE OARS!**—Every man except the bowmen seizes his oar by its handle, and sees the blade clear of other oars. The oars should be shoved forward, over the gunwale far enough to bring the handle in the proper position, but should be kept fore-and-aft. If awnings are spread, the most convenient thwartmen cast off the stops.

(2) **SHOVE OFF!**—Bowmen shove bow smoothly away from ship's side with boat-hooks, at the same time shoving her a little ahead, if possible; the coxswain sheers her off with helm, and hauls ahead on stanchions of the gangway or on the grabrope, assisted as necessary by the inboard stroke-oar, who takes his seat as soon as possible and prepares to get his oar out with rest of crew. Fenders are rigged in by men abreast them. Bowmen place boat-hooks fore-and-aft amidships, seat themselves, and get their oars ready.

(3) **OUT OARS!**—Given when the boat is clear of the ship's side. Thwartmen throw blades of oars horizontally outward, allowing the leathers to fall in rowlocks, place both hands on handle, and quickly trim blades flat and directly abeam. This is the position of *Oars!* Bowmen throw their oars out at the same time as rest of crew, if they are ready. Otherwise they swing their oars out together, touching their blades forward to insure making the movements in unison, and bring them to the position of *Oars!* or take up the stroke with the remainder of the crew, as the case may be.

(4) **GIVE WAY TOGETHER!**—All the oarsmen take the full stroke, keeping accurate stroke with the starboard stroke-oar. Feather blades habitually. Bowmen get their oars out together and take up the stroke. (They may have gotten them out before the command **GIVE WAY TOGETHER!** in which case they give way with the other members of the crew.) The crew will continue to pull a strong, steady stroke, always using their backs, and maintain silence.

(5) **IN BOWS!**—Given as landing is approached, and while the blades are in the water. Bowmen complete that stroke, toss oars simultaneously to an angle of 45 degrees, and boat them together, seize boat-hooks, stand erect in bow, facing forward, holding boat-hooks vertical in front of them until needed.

(6) **OARS!**—Given when the coxswain estimates that the boat's headway will carry her to the landing, and while the blades are in the water. Finish that stroke and assume the position *Oars!* When in this position, if landing or gangway is clear of other boats, command **WAY ENOUGH!** The crew toss their oars simultaneously to an angle of 45 degrees and lay them in place in the boat, with as little noise as possible, rigging the blades entirely inside the gunwale. The stroke-oarsman next to the landing or gangway takes up a boat-hook, the men nearest the fenders place them over on inboard side, bowmen and stroke-

oarsman check headway, keep boat clear, haul alongside, etc., as necessary.

(7) Or, if preferable, and the skill of the crew will enable them to perform the movement together, the command **OARS!** may be omitted, and instead, command **WAY ENOUGH!** given when the boat's headway will carry her to the landing, and while the blades are in the water at the beginning of a stroke. Finish that stroke, and as the oars leave the water the men toss them simultaneously to an angle of 45 degrees, and boat them quickly and quietly, rigging the blades entirely inside of the gunwale. The stroke-oarsman next to the gangway or landing takes up his boat-hook; men nearest the fenders place them over on inboard side; bowmen and stroke-oarsman check headway, keep boat clear, haul alongside, etc., as necessary.

**NOTE.**—With a single-banked boat, the oars would be trailed when the above instructions require those of a double-banked boat to be tossed and boated. The oarsmen simply let go the handles, allowing the oars to trail in a fore-and-aft direction. The oars in this case are not boated until the command **BOAT THE OARS!**

### **Dress or Special Service, which requires use of Commands given in Table II.**

47. If a cutter is called away as a running-boat, or on special duty to carry officers to another ship, in daylight, in good weather, in port, the oars will be brought to the position of *Up oars* before the boat is reported ready; the bowmen stand in fore-sheets holding on to the grabrope or jackstay, the inboard stroke-oar in stern-sheets holds on with boat-hook.

48. (1) The oars are brought to the position of *Up oars* by the commands:

(a) **STAND BY THE OARS!**—The same as under Table I; the blades will be kept clear of the bowmen's boat-hooks.

(b) **UP OARS!**—The oars, except the two bow and the inboard stroke-oars, are tossed quickly to a vertical position, blades trimmed in a fore-and-aft plane and in line with that of the stroke-oar, handles of oars resting on bottom-boards, outboard hand grasping loom of oar at height of chin, wrist of inboard arm resting on inboard thigh, and steadying oar.

**NOTE.**—The boat-officer or coxswain then reports to the officer-of-the-deck that his boat is alongside, ready for duty.

When all is ready and the officer-of-the-deck has given necessary orders to the boat, the boat-officer or coxswain commands:

(2) **SHOVE OFF!**—This command is executed as described in Art. 46, (2). As soon as possible, the inboard stroke-oar lays aside his boat-hook and gets up his oar without further command. If time permits, the bowmen get up their oars and await the command **LET FALL!** If, however, the command **LET FALL!** is given before their oars are up, they point their oars forward over the

gunwale, "kiss" the blades, swing them out, and take up the stroke, or come to *Oars!* as the case may be.

(3) **LET FALL!**—Given when the boat is clear of the ship's side. It may be necessary to let fall the forward oars before there is room for the after oars to clear the ship's side. This would be done by the command, 1, 2, and 3, **LET FALL!** or, 2 and 3 **LET FALL!** Other oars remain vertical until the command **LET FALL!** At this command all the oarsmen raise their oars vertically and drop the blades outboard into the rowlocks smartly and together, slipping the inboard hand to the handle of the oar, and come to position *Oars!* with both hands on the handle. Under no circumstances should the blades be allowed to touch the water in letting fall.

(4) **GIVE WAY TOGETHER!**—As described in Art. 46, (4).

(5) **IN BOWS!**—As described in Art. 46, (5).

(6) *Stand by to toss!* **Toss!**—The cautionary command is given as a warning to the crew. The command **Toss!** is given as the blades enter the water, and when the boat has sufficient headway just to reach the gangway or landing. The oarsmen complete that stroke, and then toss the oars quickly to a vertical position by pressing smartly on the handle with inboard hand, assisting the oar with the outboard hand under the loom. Lower handle to bottom-boards and assume position described at **UP OARS!** [See Art. 48, (1, b)]. The inboard stroke-oar lays his oar in the boat quickly after he has it at the vertical position, seizes boat-book, and assists to check headway and haul stern of boat into the gangway.

49. (1) The crew remain at the *Toss!* until officers leave the boat. They are then in position to *let fall*, when boat is ordered to lay off the quarter or to haul out to the boom.

(2) If it is desirable to lay the oars in the boat, it will be done by the command, **BOAT THE OARS!** at which each man lays his oar quickly and quietly in the boat.

(3) In rough weather or at night (when it is not desired to remain alongside with the oars at *Toss!*), the commands **OARS!** followed by **WAY ENOUGH!** or the command **WAY ENOUGH!** given alone, may be used, as described in Art. 46, (6) and (7).

### Explanations of Special Commands given in Table III.

50. (1) **OARS!**—Given when blades are in the water. Finish that stroke and bring oars quickly to position of *Oars!* [Art. 46, (3)].

(2) **TRAIL!**—Given when blades are in the water. Finish that stroke, release the handle of the oar, allowing it to draw fore-and-aft, and trail alongside. If no trailing-lines are fitted, retain the handle of the oar in the hand. With a cutter having sunken row-

locks, lift the handle of the oar quickly when blade is in the water at middle of stroke, throw oar out of rowlock, and retain handle in hand.

(3) **HOLD WATER!**—Given when blades are in the water. Cease pulling, drop the oars in the water, and hold them perpendicular to the keel line, blades vertical. With considerable way on, especially in a laden boat, care in holding water is required to prevent carrying away the rowlock or gunwale, or the oar itself. Under these conditions, drop the oars in the water with the upper edges of the blades inclined forward, and gradually bring the blades vertical as way is lost.

(4) **STERN ALL!**—Given from positions of *Oars!* or *Hold water!* The oars are backed, keeping stroke and feathering as when pulling ahead.

(5) **BACK STARBOARD! (or PORT).**—Designated oars are backed as at **STERN ALL!** Generally when boats have way on, oars should not be backed until the headway is checked by holding water or laying on oars.

(6) **BACK STARBOARD, GIVE WAY PORT!** (or vice versa).—Given from the position of *Oars!* or *Hold water!* Proceed as described in Art. 46, (4) and Art. 50, (5).

(7) **Toss!** (This command should be generally preceded by cautionary command *Stand by to toss!*)—Given when blades are in the water or at the position of *Oars!* Complete the stroke, press smartly on the handle, and, with the other hand under loom near leather, bring oar quickly to vertical position, blades trimmed fore-and-aft and in line; hands as at the completion of *Up oars!*

(8) **BOAT THE OARS!**—Given from the position *Toss!* or *Trail!* (with boats using swivel-rowlocks). Place the oars, quietly and quickly, fore-and-aft in the boat. This command may be given from any position, but it is preferable, when time and room permit, to command **OARS! TOSS! BOAT THE OARS!**

(9) **POINT THE OARS!**—To shove off a boat that has grounded, stand facing aft, point the blades of the oars outboard and downward at an angle of about 30 degrees, ready to shove off at the command. If waves lift the stern of the boat, the united effort to shove off should be made just as her stern lifts.

51. When for any reason it may be desirable, the preparatory command *Stand by to* —! may precede the commands **Toss! TRAIL! HOLD WATER! STERN ALL!** or in fact any command of execution given in a boat. In order to secure precision and uniformity of movement, and in order to avoid taking the crew by surprise, cautionary orders should usually precede commands of execution, the crew thus being always prepared promptly to execute the command when it is given. These should only be used when necessary, since a multiplicity of cautionary or pre-



paratory orders detracts from the sharp, smart work that boats and their crews should exhibit.

NOTE.—The preparatory command for OARS! is *Stand by to lay on the oars!*

## HANDLING BOATS IN A SURF.

52. (1) The most dangerous duty which a ship's boat is called upon to perform is landing through a surf. This requires greater skill than any other work in an open boat, and lack of skill or inattention on the part of the coxswain is so likely to result in a loss of life that a novice should never attempt to steer a boat through heavy surf to a beach. The skill necessary to make a successful landing through surf can be obtained only by practical experience gained first as an oarsman, and later as a coxswain.

(2) If it is absolutely necessary for an inexperienced crew to land through a surf, the safest method should be adopted, which is to back in, keeping bow to sea, and every time a sea approaches pull to meet it with a good headway, then back in as fast as possible after it passes.

(3) If this is impracticable, a fairly safe method is by towing a heavy drag over the stern.

(4) The great danger in landing through a surf is that of "Broaching-to." The breaker lifts the stern, forces it to one side until the boat gets broadside-on and capsizes. Sometimes, though rarely, a heavy sea gets under a boat, buries her bow, and turns her end over end.

(5) It should always be remembered that surf, when viewed from seaward, is exceedingly deceptive and is always much worse than it appears. On an open seacoast any surf visible from a small boat to seaward would probably be dangerous.

### Management of Open Rowing Boats in a Surf.

53. The following rules are published by the Royal National Life-boat Institution:

I. **Rowing to Seaward.**—(1) As a general rule, speed must be given to a boat rowing against a heavy surf. Indeed, under some circumstances, her safety will depend upon the utmost possible speed being attained on meeting a sea. For if the sea be really heavy, and the wind blowing a hard, on-shore gale, an approaching heavy sea may carry the boat away on its front, and turn it broadside-on, or up-end it. A boat's only chance in such a case is to obtain such a way as shall enable her to pass, end-on, through the crest of the sea, and leave it as soon as possible behind her. If there be a rather heavy surf, but no wind, or if the wind is off shore and opposed to the surf, as is often the case, a boat might be propelled so rapidly through it that her bow would fall more suddenly and heavily after topping the sea than if her way had been checked.

(2) It may also happen that, by careful management, a boat may be made to avoid the sea, so that each wave may break ahead of her, which may be the only chance of safety in a small boat; but if the shore be flat, and the broken water extend to a great distance from it, this will often be impossible.

(3) The following general rules for rowing to seaward may therefore be relied on:

(a) If sufficient command can be kept over a boat by the skill of those on board her, avoid the sea if possible, so as not to meet it at the moment of its breaking or curling over.

(b) Against a head gale and a heavy surf, get all possible speed on a boat on the approach of every sea which cannot be avoided.

(c) If more speed can be given to a boat than is sufficient to prevent her from being carried back by a surf, her way may be checked on its approach, which will give her an easier passage over it.

**II. Running Before a Broken Sea, or Surf, to the Shore (Flat Beach).—**(1) The one great danger, when running before a broken sea, is that of *broaching-to*. To that peculiar effect of the sea, so frequently destructive of human life, the utmost attention must be directed. The cause of a boat's broaching-to, when running before a broken sea or surf, is that her own motion, being in the same direction as that of the sea, she opposes no resistance to it, but is carried before it. Thus, if a boat be running bow-on to the shore, and her stern to the sea, the first effect of a surf or roller, on its overtaking her, is to throw up the stern, and, as a consequence, to depress the bow; if she then have sufficient inertia (which will be proportional to weight) to allow the sea to pass her, she will in succession pass through the descending, the horizontal, and the ascending positions, as the crest of the wave passes successively her stern, her midships, and her bow, in the reverse order in which the same positions occur in a boat propelled to seaward against a surf. This may be defined as the safe mode of running before a broken sea.

(2) But if a boat, on being overtaken by a heavy surf, has not sufficient inertia to allow it to pass her, the first of the three positions alone occurs—her stern is raised high in the air, and the wave carries the boat before it, on its front or unsafe side, the bow deeply immersed in the hollow of the sea, where the water, being stationary, or comparatively so, offers a resistance; while the crest of the sea, having the actual motion which causes it to break, forces onward the rear end of the boat. A boat in this position will sometimes, aided by careful oar-steerage, run a considerable distance until the wave has broken and expended itself. But it will often happen that, if the bow be low, it will be driven under water, when, the buoyancy being lost forward, while the sea presses on the stern, the boat will be thrown end over end.



Or if the bow be high, or protected by a bow air-chamber, so that it does not become submerged, the resistance forward acting on one bow will slightly turn the boat's head, and the force of the surf being transferred to the opposite quarter, she will in a moment be turned broadside to the sea, and be thrown by it on her beam-ends, or altogether capsized. It is in this manner that most boats are upset in a surf, especially on flat coasts.

(3) Hence it follows that the management of a boat when landing through a heavy surf, must stop her progress shoreward at the moment of her being overtaken by a heavy sea, and enable it to pass her. There are different ways of effecting this object:

1st. By turning a boat's head to the sea before entering the broken water, and then backing in, stern foremost, pulling a few strokes ahead to meet each heavy sea, and then again backing astern. If a sea be really heavy and a boat small, this plan will be generally safest.

2d. If rowing to shore with the stern to seaward, by backing all the oars on the approach of a heavy sea, and rowing ahead again as soon as it has passed to the bow of the boat, thus rowing in on the back of the wave; or, as is practical in some life-boats, placing the after oarsmen with their faces forward, and making them row back at each sea on its approach.

3d. If rowed in bow foremost, by towing astern a pig of ballast or large stone, or a large basket, or a canvas bag, termed a "drogue," or drag, made for the purpose, the object of each being to hold the boat's stern back and prevent her being turned broadside to the sea or broaching-to.

(4) A boat's sail bent to a yard, loosed and towed astern, the yard being attached to a line capable of being veered, hauled, or let go, will act in some measure as a drag, and will tend much to break the force of the sea immediately astern of the boat.

(5) Heavy weights should be kept out of the extreme ends of a boat, but when rowing before a heavy sea, the best trim is deepest by the stern, which prevents the stern being readily beaten off by the sea.

(6) When running before a sea, a boat should be steered by an oar over the stern or on one quarter.

(7) The following general rules may, therefore, be depended on when running before, or attempting to land through a heavy surf or broken water:

(a) As far as possible avoid each sea by placing the boat where the sea will break ahead of her.

(b) If the sea be very heavy, or if the boat be small, and especially if she have a square stern, bring her bow around to seaward and back her in, rowing ahead against each heavy surf, sufficiently to allow it to pass the boat.

(c) If it be considered safe to proceed to the shore bow foremost, back the oars against each sea on its approach, so as

to stop the boat's way through the water as far as possible, and if there is a drag, or any other appliance in the boat which may be used as one, tow it astern to aid in keeping the boat stern-on to the sea, which is the chief object in view.

(d) Bring the principal weight in the boat towards the end that is to seaward, but not to the extreme end.

(e) If a boat worked by both sails and oars be running under sail for the land, through a heavy sea, her crew should, unless the beach be quite steep, take down her masts and sails before entering the broken water, and take her to land under oars alone, as above described. If she have sails only, her sails should be much reduced, a half-lowered foresail or other small head-sail being sufficient.

**III. Beaching, or landing through a surf.**—(1) The running before a surf or broken sea, and the beaching, or landing of a boat, are two distinct operations; the management of boats, as above recommended, has exclusive reference to running before a surf where the shore is so flat that the broken water extends to some distance from the beach. On a very steep beach, the first heavy fall of broken water will be on the beach itself, while on some very flat shores, there will be broken water extending four or five miles from the land. The outermost line of broken water, on a flat shore, where the waves break in three or four fathoms of water, is the heaviest, and therefore the most dangerous; and when it has been passed through in safety, the danger lessens as the water shoals, until on nearing the land, its force is spent and its power is harmless. As the character of the sea is quite different on steep and flat shores, so is the customary management of boats, on landing, different in the two situations.

(2) **On the flat shore**, whether a boat be run or backed in, she is kept straight before, or end-on to the sea until she is fairly aground, when each surf takes her further in as it overtakes her, aided by the crew, who will then generally jump out to lighten her, and drag her in by her sides. As above stated, sail will, in this case, have been previously taken in, if set, and the boat will have been rowed or backed in by the oars alone.

(3) **On the steep beach**, on the other hand, it is the general practice, in a boat of any size, to sail right on to the beach, and in the act of landing, whether under oars or sail, to turn the boat's bow half round, towards the direction in which the surf is running, so that she may be thrown on her broadside up the beach, where abundance of help is usually at hand to haul her as quickly as possible out of the reach of the sea. In such situations, we believe it is nowhere the practice to back a boat in stern foremost under oars, but to row in under full speed, as above described.

## RUNNING A LINE.

54. (1) Coil the greater part of the line in the stern-sheets, but take end enough in the bow to make fast when you reach the landing. Pull away and let the ship pay out more line until you are sure of having enough in the boat to reach, then pay out from the boat. Always have plenty of good seizing-stuff for making all secure, and if you are to stand by the line, have an axe ready for cutting in case you are ordered to do so.

(2) If laying out with the tide, take less line in the boat than otherwise; if against the tide, it will save work to take all the line in the boat, pull up and make fast, then bring the end back to the ship. With a long line to be laid out in a strong current, it will usually be necessary to have several boats—one to run away with the end, the others to under-run the line at intervals, floating it and pulling up stream with the bight.

(3) If the line is to be secured to a post, put a bowline in the end before starting, and throw this over the post. Bend on a heaving line and let the bow oarsman throw this, if hands are standing by to receive it, or jump ashore with it himself, if necessary.

## TOWING.

55. (1) In ordinary cases of towing—an *unladen boat* in a *smooth sea*—the towing boat passes clear of the oars of the tow (oars of tow should preferably be tossed to facilitate this), placing herself in line ahead, receives painter from the tow, secures it to ring-bolt in stern-post, and starts ahead immediately she has hold of the painter.

(2) The bowman in the tow must not give the towing boat his painter until she is in line ahead; he will then take in the slack of the towline, keeping a strain on it and gradually pay it out, thus getting way on the tow gradually. This latter precaution is particularly necessary if the tow is at all heavy.

(3) Though it is frequently impracticable, it is always preferable for the towing boat to give the tow a painter (instead of vice versa), which the tow should tend and keep ready for letting go in an instant. If this is not done, and the tow gives the towing vessel her bow painter, which is shackled in the bow, a hatchet or sharp knife should be kept at hand for cutting the towline in an emergency.

(4) If the tow is heavily laden, or the sea rough, the above method brings too much strain on the stem and stern-posts of the boats, hence in such a case the painter should be toggled to a stretcher between the two after thwarts of the towing boat and to the forward thwart of the tow. To steer a boat that is towing in this manner, bear the towline over on the quarter toward which it is desired to turn, for the helm will be of little use.

(5) Towing of ship's boats is now usually done by the steamers, which are frequently fitted with a span, the ends of which are secured to either quarter. This facilitates steering and is in all respects preferable to securing the towline to the shackle in the stern-post.

(6) When being towed astern of a large vessel, use a short scope so as to remain close under the counter, with the bow partly out of water. In casting off when there are other boats towing astern, be careful, before letting go, either to drop clear of them all with your towline, or be handy with your oars to avoid getting athwart the hawse of some of them.

(7) Except in the case of unladen boats in smooth water, a number of boats should never be towed tandem by their painters, for in a long tow this brings a considerable strain on stem and stern timbers of the foremost boats. To avoid this strain, the towing vessel should pay out sufficient line to reach the bow of the last boat, the other boats being secured to it by slip-lines at bow and stern.

(8) If towing alongside, have the towline from as far forward on the towing vessel as possible, either toggle it to the forward thwart (steadying it over the stem with a bight of the painter), or pass it through the forward rowlock on the side nearest the towing vessel. Pay particular attention to the steering.

### CARRYING STORES.

56. (1) When carrying provisions, be careful with the oars as they are easily injured by letting stores fall on them. Keep all casks "bung up" and leave a space, or "well," under the after thwart for bailing the boat out.

(2) Have tarpaulins for covering bread or anything that will be injured by salt water or rain.

(3) While loading, make a large allowance for the roughness of the water you may have to encounter.

(4) Do not overload a boat, particularly with men, as it may result in loss of life. When carrying treasure always attach a buoy with a drift of line at least equal to the greatest depth of water on the route to be taken.

### BOARDING A WRECK IN A HEAVY SEA.

57. (1) Whenever practicable, a vessel, whether stranded or afloat, should be boarded to leeward, as the *principal* danger is that the boat may collide against the vessel or be swamped by the rebound of the sea, and the greater violence of the sea on the weather side of the vessel renders such accidents more liable to occur on that side.

(2) If a **stranded vessel** is broadside to the sea, the chief danger in boarding to leeward is the possible falling of the masts, or

that the boat may be stove by the wreckage alongside. Under such circumstances it may be necessary to take a wrecked crew into a life-boat from the bow or stern of the wreck. In boarding a wreck that is stranded on a flat shore, life-boats usually anchor to windward, and veer down from a safe distance, until near enough to throw a line on board.

(3) In rescuing people from a drifting wreck, approach from leeward, taking care to avoid wreckage floating alongside. If there is much wind it is best to lay well off, throw a strong line aboard, have the people secure the line around their bodies, one at a time, and jump overboard, for if the boat gets alongside of a wreck which is rapidly drifting to leeward, there is danger of swamping, and much difficulty in getting her clear of the side.

(4) Should it be necessary to go alongside, it is preferable to run the bow or stern to the gangway or sea-ladder, keeping her headed at right angles to the ship's keel, with oars out ready for pulling or backing away.

(5) An exception to the usual rule of boarding a drifting vessel to leeward occurs in the case of a vessel of very low free-board, such as small schooners, etc. Board such craft on the *weather quarter* to avoid being stove in by her main-boom, chains, etc.

### NOTES ON HANDLING BOATS UNDER OARS.

58. (1) In going into a crowded or difficult landing, pull easily and keep the boat under control with the oars as long as possible, laying on oars if necessary, and boating oars only at the last moment.

(2) In going through a narrow entrance get good way on the boat, then trail or toss the oars.

(3) Remember that a loaded boat holds her way much longer than a light one.

(4) In pulling across a current, try to get a range on two objects in line and steer by these to avoid being set down by the current.

(5) Having a long pull against the tide, run inshore where the tide is slacker than in midstream, and where there is sometimes a strong eddy.

(6) There should always be a lantern, filled and trimmed, in the boat, and boats should never leave the ship for a trip of any great length without a compass. Weather is liable to thicken at any time, and a boat without a compass would have difficulty in reaching a landing or returning to the ship. For this reason, boat-officers and coxswains of running-boats should at all times know the compass course between the ship and landing, and if they are away from the ship and it begins to thicken, they should at once observe the compass course before the ship is shut in.



(7) In steam-launches, owing to deviation of the compass, coxswains must understand that the only way to obtain a correct compass course is to put the boat-compass in its regular place, head the boat on the correct course, then read the compass course. If this is not done considerable errors are liable to occur.

(8) At sea no boat should ever leave the ship without a compass, water, and provisions and, excepting life-boats, all boats sent away from a ship at sea will carry rifles and ammunition.

(9) Never go alongside a vessel which has sternboard, or which is backing her engines.

(10) In coming alongside in a seaway or when a strong tide is running, warn the bowman to look out for the boat line which will be hove from the ship.

(11) If caught in a gale in an open boat, rig a sea-anchor by lashing the spars and sails together, sails loosed. Fit a span to this and ride by the painter. If there is oil in the boat, secure a bag of it to the sea-anchor.

## BOATS UNDER SAIL.

### SLIDING-GUNTER RIG.

#### Commands.

#### Duties.

59. (1) Being under oars, to make sail.

(a) WAY ENOUGH!.....Oars are boated as above described.

(b) STAND BY TO STEP!.....All hands cast off spar-covers. Bowmen see step of foremast clear.

Starboard thwartmen launch mainmast forward until heel of mast is even with step, raise masthead.

Similarly, port thwartmen launch foremast aft, and raise masthead.

All the crew remain seated whenever their duties will permit.

(c) STEP THE MASTS .....Stroke-oars guide heel of main into step.

Bow-oars guide heel of fore into step.

Starboard thwartmen stand on bottom-boards and raise mainmast.

Port thwartmen stand on bottom-boards and raise foremast.

Bow- and stroke-oarsmen get masts on proper slue and, when nearly vertical, guide them into step.

Bow- and stroke-oarsmen and 2d-bow and 2d-stroke cast off shrouds and set them up. If jib-boom is used, it is stepped by bowmen, after mast is stepped. In this case the 2d-bowmen set up the fore shrouds.

(d) LOOSE SAIL!.....Stroke-oarsmen cast off sheet from main and take place in stern-sheets with main-sheet in hand.

2d-stroke attends main-brails. The other 2d-stroke mans main-topmast halliards.

Starboard stroke reports when all is ready aft.

2d-bowman casts adrift fore-sheet, passes it aft, and attends fore-brails. The other 2d-bowman mans fore-topmast halliards.

One bowman casts adrift jib-halliards, hauls head of jib down to the deck and mans jib-halliards. The other bowman sets up jib-tack and passes sheets aft on each side.

Starboard bowman reports when all is ready forward.

(e) WITH STARBOARD (OR

PORT) SHEET. MAKE SAIL!..Topmasts are hoisted chock up, brails eased down and well overhauled, and jib hoisted.

Thwartmen convenient to sheets, haul them aft on designated side and *attend them*.

*Never belay a sheet in a sail-boat.*

Bowmen keep bright lookout ahead, starboard bowman when on starboard tack, port bowman when on port tack.



Lookouts keep coxswain fully informed of the proximity of obstructions or approaching vessel.

(2) **To tack.**

(a) **READY ABOUT!** ..... Given as a warning for the crew to prepare for the evolution. The coxswain gives the boat a good full, waits for a smooth time, then eases down the helm. At the same time the man tending main-sheet hauls main-boom amidships slowly. (Do not haul it across mid-ship line for it then acts as a back-sail.)

(b) **EASE OFF THE JIB-SHEET!** Given when jib begins to shiver.

(c) **LET GO FORE-SHEET!** ..... Given when foresail ceases to draw. If wind causes foresail to flap objectionably, smother it into the mast. If boat seems inclined to stop head to wind, haul jib-sheet to windward. This will be taken aback and pay her head around. If boat gathers sternboard, shift the helm.

(d) **SHIFT OVER MAIN-SHEET!** When wind is ahead, shift over the main-sheet and stand by to haul it aft when well around on the new tack.

(e) **HAUL AFT FORE- AND JIB-SHEETS!** ..... As soon as the bow of the boat has passed the wind, haul aft fore- and jib-sheets, leaving the main-sheet slack, until boat is well around, then trim by the wind.

If the boat falls off too far from the wind, and there is little steerage way, haul aft main-sheet, and keep jib-sheet flying until she is brought up by the fore- and mainsail and the helm.

When nearly high enough, haul aft the jib-sheet and trim her by the wind.

## (3) To wear.

(a) STAND BY TO WEAR! .... Given as a warning for the crew, to prepare for the evolution. The coxswain puts the helm up when ready.

(b) EASE OFF MAIN-SHEET! ... Given as her head pays off, in order to get the maximum effect of the mainsail in increasing her headway. Keep fast fore- and jib-sheets until wind is abeam, as they help pay her head off.

(c) EASE OFF FORE- AND JIB-SHEETS! ..... Given when wind is a little abaft the beam. Slack the sheets off gradually, to give headway.

(d) UP MAINSAIL! ..... Given when wind comes nearly aft. Brail up mainsail, leaving topmast halliards fast.

(e) SHIFT OVER SHEETS! .... Given when wind is aft. Stand by to haul all sheets aft on other side. Smother foresail into foremast if it causes annoyance by flapping.

(f) DOWN MAINSAIL! ..... Given when wind is slightly on new weather quarter. Set mainsail and haul it flat aft; leave other sheets flying, or smothered into mast, so she will come up rapidly.

(g) HAUL AFT FORE- AND JIB-SHEETS! ..... Given as she comes by the wind on new tack. Haul both sheets flat aft.

NOTE.—If wearing in a light to gentle breeze, it is unnecessary to brail up the mainsail, but in a moderate breeze, or anything stronger, it should always be done on account of danger from gybing under those circumstances.

With a sloop-rig, put helm up, and ease off sheets. When wind is nearly aft, trim in main-boom, to avoid danger from gybing violently. In anything stronger than a gentle breeze, sloop-rigged boats should always be tacked to avoid this danger. If absolutely necessary to gybe a sloop in a fresh breeze, the peak should be dropped in addition to hauling in main-boom.

(4) **To brail up.**

(a) **STAND BY TO BRAIL UP!**...Designated thwartmen man the  
brails, men tending sheets  
stand by to slack them off.  
Bowmen stand by to lower away  
jib.

(b) **BRAIL UP!** .....The clews of foresail and main-  
sail are hauled up, keeping  
fast the topmast halliards.  
The jib-halliards are slacked off  
and head of jib hauled down  
in the fore-sheets, keeping  
jib entirely inside the rail.

**NOTE.**—To make sail from this position, see Art. 59, (1, e).

(5) **To heave to.**

(a) **STAND BY TO HEAVE TO!**..Given as a warning for the crew  
to prepare for the evolution.  
Coxswain brings boat by the  
wind and keeps helm down.

(b) **HAUL MAIN-BOOM AMID-  
SHIPS! HAUL AFT  
WEATHER JIB-SHEET!**

**UP FORESAIL!** .....These commands are given sim-  
ultaneously, and are obeyed  
by the men at the various  
stations.

In heavy weather the foresail  
is brailed up, keeping fast  
fore-topmast halliards.

In light breezes the fore-sheet  
may be simply slacked off.

If bow falls off, slack away jib-  
sheet.

The boat in this condition should  
lay dead in the water, wind  
about abeam.

(6) **To get under way from  
"Heave To."**

**MAKE SAIL!** .....Haul aft fore- and jib-sheets,  
ease the helm and ease off  
the main-boom.

(7) **To reef sail.**

(a) **STAND BY TO REEF!**.....Given as a warning for the crew  
to prepare for the evolution.  
Tend all halliards. Pass reef-

points through eyelet-holes,  
if not already rove off.

Coxswain brings boat by the  
wind.

(b) SLACK DOWN THE  
HALLIARDS! .....

Coxswain luffs slightly, but not  
enough to cause boat to  
lose headway.

Topmast and jib-halliards are  
slacked down about eighteen  
inches.

(c) REEF SAIL! .....Secure reef-earings to tack  
of sails. Pass reef-points  
around foot of sail. Earing  
in leech should be tightly  
bound around foot of sail,  
not around the boom. The  
bowmen report *all ready  
forward!* When ready com-  
mand:

(d) HOIST AWAY! .....Men at halliards hoist sails, and  
coxswain lays the boat on  
desired course. Always keep  
boat under control, if pos-  
sible, while reefing. Reef  
whenever boat begins to take  
in water over lee rail.  
Never be afraid of reefing  
too soon.

(8) To douse sail.

(a) STAND BY TO SHORTEN  
SAIL! .....

Given as a warning for crew  
to stand by their stations.  
Tend topmast-halliards, man  
brails, bowmen stand by jib-  
tack and get it ready for  
slipping quickly.

(b) SHORTEN SAIL! .....Lower topmasts, brail up fore  
and mainsails. Ease off jib-  
tack, keeping halliards fast.  
Smother jib into foremast.  
Men sit in their thwarts awaiting  
next command.

(c) FURL SAILS! .....Bowman and 2d-bowman, stroke  
and 2d-stroke bundle all gear  
into sails, roll them up neatly  
around mast, making smooth

skin. Pass sheets around sails, binding them to masts.

(d) PREPARE TO UNSTEP! ....Cast off shrouds. Bow- and stroke-oarsmen take a shroud in each hand, and, by repeated crossing from one side to another, frap each sail securely into its mast. Bind the shrouds together near foot of mast and tuck in all ends. Bow- and stroke-oarsmen report when all is ready for unstepping.

(e) STAND BY! UNSTEP! ....Make a slight pause between these commands.

The bow- and stroke-oarsmen seize their respective masts and lift them vertically (inclining mast in direction it is to be lowered) until heel is clear of hole in thwart, then lower them, foremast on port side, mainmast on starboard side.

Men amidships stand on bottom-boards, and help receive and stow masts. After masts are unstepped, launch the mainmast bodily aft, foremast bodily forward. Men quickly take seats on thwarts.

Care will be observed to keep masts from going by the board or going down with a run, but even in this case, it should be possible for men in the waist to receive them without injury to themselves.

A well-drilled crew should easily be able to go from oars to sails, or vice versa, in one minute.

Except with a considerably reduced crew, or in a heavy seaway, masts will never be stepped or unstepped singly. It is not seamanlike and encourages laxity at drill.

## Notes.

60. (1) It will be observed that a distinction is made between SHORTEN SAIL! and BRAIL UP! SHORTEN SAIL! always requires topmasts to be lowered, while BRAIL UP! requires that they be kept fast.

(2) A similar distinction should be made between IN MAINSAIL! and UP MAINSAIL! (or FORESAIL!). IN MAINSAIL! requiring topmasts to be lowered; UP MAINSAIL! requires topmasts to be kept fast and the sail brailled up.

(3) SHORTEN SAIL! and BRAIL UP! apply to both masts, working simultaneously. IN MAINSAIL! (or IN FORESAIL!) are the commands used to take in either sail singly.

(4) The commands herein laid down apply to the sliding-gunter rig. The principles of all boat sailing are the same, and if a different rig is employed this drill will be adapted as well as the circumstances permit.

(5) In general it will be noted that the stroke-oarsmen handle the main, assisted by the 2d-stroke. The bow-oarsmen handle the fore (assisted by 2d-bowmen) until jib is cast adrift. They then devote their attention to the jib, leaving the work around foremast to the 2d-bowmen. Stroke-oarsmen handle main-sheets; 2d-stroke handles the main-brails and halliards and attends fore-sheets. In general, the men on thwarts nearest the cleats attend the sheets, regardless of the sail to which it belongs. The starboard bow-oarsman is in general charge forward and the starboard stroke in general charge of the main, and these men will make necessary reports to the officer or petty-officer in charge of the boat.

(6) The use of the lee oars is dangerous when under sail. A slight gust of wind lowers the gunwale so as to prevent the oars being lifted from the water, thus "catching a crab" and the headway of the boat will cause the oars to fly violently fore-and-aft.

(7) The boat-officer or coxswain will never permit anyone to climb the mast of a boat. If halliards, brails, etc., are unrove, unstep the mast.

(8) Coming alongside under sail requires care, judgment, and experience. In the first place, it should not be attempted if a boat, or other obstruction which the masts could touch, overhangs the gangway, nor in rough weather when the rolling motion of the boat would cause the masts to strike the gangway-platform. In such cases masts should be unstepped and the boat brought alongside under oars.

(9) If the ship is riding to a windward tide, approach the gangway from abaft the beam, tend all gear and shorten sail when boat has sufficient way to reach gangway. The bow- and stroke-oarsmen tend boat-hooks, the other men performing their duties in shortening sail.



(10) If the ship is riding to the wind, approach the gangway from about abeam, tend all gear, bow- and stroke-oarsmen stand by with boat-hooks, when there is sufficient way to make the gangway, command: **IN JIB AND FORESAIL!** The jib-tack and sheet are let go, jib smothered into foremast, lower the fore-topmast and brail it up, at the same time put helm hard down, haul main-boom amidships, or a bit on the weather quarter. This throws the boat's head into the wind, and hauling main-boom to windward deadens her headway, when desirable. When alongside command: **IN MAINSAIL!** stow sails and unstep, if desirable.

(11) The above is the surest and safest method, but with skillful handling all sails may be taken in together, helm put hard down, and boat rounded up to gangway. This requires more skill and judgment and should not ordinarily be attempted.

(12) If there is any current, make allowance for it by heading for a point further forward or aft, as the case may be.

### NOTES ON HANDLING BOATS UNDER SAIL.

**NOTE.**—The following general notes on handling boats under sail are taken from the Petty-Officer's Drill-Book, 1902, in which they were reproduced by permission from Knight's Modern Seamanship:

**61. Trim.**—(1) To do her best under sail, a boat must be trimmed in accordance with her build and rig.

(2) If she carries considerable head-sail, she will need to be deeper forward than would otherwise be desirable. If she has little or no head-sail, she should trim by the stern. The build and rig are fixed upon with reference to each other, due consideration being given to the purpose for which the boat is designed. Once fixed, the characteristics are practically permanent. The trim of both boat and sails, on the other hand, can be varied within rather wide limits; but they, too, must be considered with reference to each other. Most boats when on the wind sail best when carrying a little weather helm; that is to say, when they have a slight tendency to come into the wind. Too much weather helm may be corrected by shifting weights aft; too much lee helm, by shifting them forward.

(3) **The weights** should be kept out of the ends of the boat, without being unduly crowded together amidships. It is especially important to keep heavy weights out of the bow. The only ballast, as such, that should be carried, is water in breakers. Under no circumstances should "sinking" ballast be allowed; ballast, in other words, which is heavier than water. The lower the weights can be stowed, the better; but care should be taken to keep the "well" clear for bailing. Ballast and cargo must be secured against the possibility of shifting. The crew should be kept well down, and nobody be allowed to stand on the thwarts or to sit on the gunwale. If the men are sitting to windward in a fresh breeze, they should move amidships when passing under

the lee of a vessel or other object, where the wind may fail or even shift in an eddy. The mast should be properly stayed up and down or with a slight rake aft, and the halliards taut up.

62. In a lug-rig, the halliards act as a weather shroud, the tie being led down to windward and abaft, and set up by a two-fold purchase. In most other rigs, shrouds are fitted.

63. (1) On the wind, as has been said, a boat should carry a little weather-helm. The sails should be kept rap full, sheets not too flat, but everything drawing and the boat alive. It is a common mistake to get the sheets so flat that the boat, while pointing high, actually makes a course to leeward of that which she would make if kept away a little with sheets eased accordingly; and it is of course clear that if kept away, her speed will be greater than when jammed up into the wind, in the hope of stealing a fraction of a point. A boat of good draft with a deep keel, or centerboard, and yachts designed for racing, with fin-keels hanging ten feet below their normal draft, will lie amazingly close to the wind with little or no leeway. Ship's boats, however, are not constructed on yachting lines and cannot be held up in the same way.

(2) Sheets may be hauled flatter in smooth water than in rough, and the sheets of standing-lugs, gaff- and boom-sails, sliding-gunters and the like, may be hauled flatter than those of dipping-lugs. The sails being properly set, the leech-cloths of the sails are kept just trembling, with enough weather-helm to let the helmsman "feel" that she wants to come into the wind. As the wind will vary more or less (in apparent, if not real, direction), it is necessary to be watchful and to bring her up or keep her away, from time to time, in order that she may be always at her best. The sails should be kept fuller in rough than in smooth water, and it is more important that the boat should be kept going so as to be always under command of the helm. If a heavy breaking sea is seen bearing down upon her, she should be luffed up to meet it, and kept away again as soon as it has passed. If she loses way she becomes helpless at once. It is dangerous to be caught by a heavy sea on the beam; and if the course to be made in rough water would bring the boat into the trough of the sea, the best plan is to run off for a time with the sea on the quarter, then bring her up with it on the bow, and so make good the course desired without actually steering it at any time.

64. (1) It is a universal rule in boat-sailing that the sheets should never be belayed in any weather.

(2) For a moderate squall, the boat should be luffed sufficiently to shake, without spilling, the sails, thus keeping headway enough to retain control, but with the sheets (as always) in hand. If it comes stronger, she must be luffed more decidedly and the sheet slacked more or less. The sheet may, of course, be let go, and in a sudden emergency this must be done at once, in addition

to putting down the helm, and, if necessary, reducing sail; but the longer she can be kept under control the better, and to let go the sheet is to give up control.

(3) The situation is quite different in running free. Here the sail cannot be spilled by a touch of the helm, and the only prudent thing is to slack the sheet while luffing. The force of the wind would be much reduced by running off, but the trouble with this is that if it comes too strong there is no resource but to lower the sail, and the chances are that it will bind against the shrouds and refuse to come down. Moreover, there is always danger that the wind will shift in a squall, and the mainsail may gybe with dangerous force.

### Reefing.

65. (1) **When a boat begins to take water**, it is time to reef. And she should never, even in smooth water, be allowed to heel too much. A boat that is decked over may run her lee rail awash; but when an open boat is approaching this point it must be remembered that a fresher puff may bear the gunwale lower without warning, and that the moment it dips the boat will almost certainly fill and capsize. The details of reefing will depend upon the rig, but a few general rules may be laid down. The men should be stationed before beginning, and should all be required to remain seated. One hand lowers the halliards as much as may be necessary, another hauls down on the leech and shifts the tack. The sheet is hauled in a little to let the men detailed for the reef-points get hold of and gather in the foot. The sheet is then slacked and shifted, the reef-points passed, the halliards manned, the sail hoisted and the sheet trimmed. It is important to keep the boat under command while reefing, and for this she must have way enough to obey her helm. If she can be luffed a little and still be kept going through the water sufficiently to obey her helm, then it is unquestionably wise to luff, but not sufficiently to risk losing control by the helm.

(2) If the boat has more than one sail, it is a safe plan to reef them one at a time, when the sea is dangerously heavy. If there is sufficient crew in the boat, and the sea is moderate, the seaman-like method is, however, to reef all sails simultaneously, as is the habitual practice on drill.

### Running before the Wind.

66. (1) **This is the most dangerous point of sailing** in a fresh breeze, because of the chance of gybing. The danger increases if the boat yaws, as she will have a tendency to do if trimmed at all by the head; from which follows the rule: in running keep the weights fairly well aft, though never at the extreme after end. Very careful steering is required, and if the sea is really heavy,

the chances are that the boom will gybe in spite of all the care that can be taken, unless lashed to the rail or to a shroud by a "lazy guy."

(2) Squalls are not so dangerous before the wind as when closehauled, unless they are accompanied by a shift of wind. If they call for any reduction of sail, it may be made by dropping the peak of a mainsail (if a gaff-sail), or, more satisfactorily, by reefing.

(3) In running before the wind the foresail is sometimes set on the side opposite the mainsail, a temporary boom being rigged by using a boat-hook or an oar. A boat sailing in this way is going "wing and wing."

(4) If the sea is rough, it is well to avoid running with the wind dead aft. To make good a course directly to leeward, the wind may be brought first on one quarter and then on the other, the mainsail being clewed up, or the peak dropped, each time the course is changed, if the breeze is strong enough to make gybing dangerous.

(5) A serious danger in running before a heavy sea is that of "broaching-to." The boat will yaw considerably, the rudder will be often out of water when it is most needed to *meet her*, and the sails will be becalmed in the trough of the sea. The situation here is much like that of a boat running in a surf; and, as in that case, the yawing will be reduced by keeping the weights aft and by steering with an oar. The jib should always be set, with the sheet hauled aft. It helps to meet and pay her off if she "flies to" against the helm. A drag towed over the stern is also helpful.

(6) Another danger in running is that the boom may dip in the water as she rolls, and thus capsize the boat.

### Tacking.

67. (1) In tacking, the same principles apply to a boat as to a ship. After-sail tends to bring her head to wind, head-sail to keep her off; but all sails, so long as they draw, give her headway and so add to the steering-power of the helm.

(2) It is clear that a short, full boat will turn to windward better than a long, narrow one, and will require a much shorter distance for coming around. Thus a short boat is preferable to a long one for working up a narrow channel.

(3) Under ideal conditions, a boat closehauled, but with good way on, shoots up into the wind as the helm is eased down, makes a good reach to windward, and fills away on the new tack without for a moment losing headway. The main-boom is hauled amidships, and, as the jib and foresail lift, their sheets are let go. The boat comes head to wind, and as she pays off on the new tack the sheets are hauled aft and she is steadied on her course. Under less favorable conditions, tacking is not so simple. If there is a sea on the bow, advantage must be taken of a smooth



time to ease the helm down; the main-boom must be hauled amidships gradually, and the foresail kept full as long as it will draw. If the boat loses headway, the jib-sheet is held out on the old lee bow (not too far) to pay her head around, and care must be taken not to make a "back sail" of the mainsail. As she gathers sternboard the helm is shifted, and, if necessary, an oar is gotten out to help her around. Carrying the weights forward is favorable for tacking, but when a boat has sternboard she may be helped around by putting a few of the crew on the (new) lee quarter, where, by increasing the immersion of the full lines of the counter, they add to the resistance and cause the bow to fall off.

(4) If she gets "in irons," either an oar must be used or the jib and foresail sheets must be hauled over on the old tack, flat aback, to give her sternboard. This last is a dangerous maneuver in a strong breeze and rough sea. The use of an oar at any time with a boat under sail is to be discouraged as being lubberly.

### Wearing.

68. (1) In wearing, the helm is put up and the main-sheet slacked away roundly. The boat goes off before the wind, the mainsail is either gybed, or brailed up and shifted over (preferably the latter), and the boat is hauled up on the new tack, losing more or less ground to leeward, according to circumstances. The details of the maneuver may vary considerably according to the conditions of wind and sea and the peculiarities of the boat as to rig and trim. In a light breeze, the main-sheet is slacked away roundly until the wind is aft, then hauled in smartly for gybing and eased away steadily on the new lee quarter. In a fresh breeze, where gybing would be dangerous, the mainsail is brailed up just before the wind comes aft, and set again in time to bring her to the wind on the new tack.

(2) The fore- and jib-sheets are shifted when nearly before the wind. As she comes to on the new tack, they are left flowing until hauled aft to *meet her* by the wind.

### Gybing.

69. (1) A sail is "gybed" when it is allowed to swing from one side to the other, the wind being aft or nearly so, and the sail full, first on one side and then on the other. This may be done intentionally, as in wearing or in changing course, or it may come unexpectedly from a shift of wind or from the yawing of the boat. As it necessarily involves a violent swing of the sail, it puts a heavy strain upon the spars and fittings and causes the boat to lurch more or less deeply to leeward. Moreover, the violent sweep of the boom across the stern endangers everybody in its path.

(2) In a light breeze, these dangers are perhaps not serious enough to justify the rule that a mainsail should never be gybed, but in a fresh breeze it should not be thought of; and the fact that it is often done by experienced boatmen does not make it any more seamanlike.

(3) When a necessary change of course in a fresh breeze will bring a shift of wind from one quarter to the other, the sail should be lowered or clewed up for a moment before putting up the helm, and then set again on the other quarter. If this cannot be done and it is still necessary to gybe, the peak should be dropped, the boom hauled in slowly and eased away on the new tack.

## STEAMERS.

### Special Duties of Coxswains.

70. (1) The coxswain of a steamer is responsible for the whole boat, and for the discipline and obedience to regulations of all men in the boat.

(2) While the engineer and fireman, so far as relate to their technical duties, remain responsible to the senior engineer-officer for the proper performance of these duties, they are nevertheless, in general matters, entirely under the orders of the coxswain.

(3) The engineer of the steamer, in technical matters, has general charge of the boiler and engine, and is responsible that the fireman efficiently performs his duties, as he is simply the assistant of the engineer.

(4) If anything is required about the engines, such as coal or water, or if any repairs are required which necessitate temporarily disabling the boat, the engineer will report it to the coxswain, who will report to the officer-of-the-deck.

(5) In overhauling the boat, while in the cradles, the same rule prevails; while the engineer will attend to the technical details of the work on boilers or engines, any outside assistance necessary, not technical in nature, should be obtained by the coxswain; if necessary, by applying to the officer-of-the-deck.

(6) Orders relating to getting up steam are given to the coxswain of the boat, who will inform the engineer. The coxswain is responsible that all reasonable efforts have been made to have steam up at the moment ordered.

(7) The coxswain of a steamer should, as soon as possible after being assigned to that duty, make a special study of his boat, with a view to getting perfectly familiar with her. He should learn by practice the turning-circle, the effect of the screw under different conditions. Also the amount of coal, water, and oil usually carried, the maximum speed of the boat, the steaming-radius, and the amount of extra coal, water, and oil required to cover a given distance at the ordinary speed.



(8) The general instructions for coxswains of boats apply, with equal force, to the coxswain of a steamer, but he is particularly warned, owing to the greater power of his boat, and the greater injury in case of a collision, carefully to study the "Rules of the Road."

(9) In running in a fog, the coxswain should remember that, owing to the presence of the boiler and engine in the boat, the compass will be affected; therefore, to get a correct compass-course, it must not be taken from a chart, but should be observed by reading the compass *when it is in its place for steering by it, and with the launch headed in the desired direction*. This gives the true reading of the compass when the launch is headed on the desired course. Therefore, on his very first trip in and out from a landing the coxswain should always use his compass, observe and, if necessary, record the compass-course, so that he could make the trip, either way, in a fog.

(10) Knowledge of the effect of the screw on the steering is most essential to a coxswain. Generally speaking, the right-handed screw when going ahead tends to throw the stern to starboard; when backing, to port. In other words, the stern is dragged around in the direction the propeller is turning, and this effect is noted whether the boat itself has begun to answer the motion of the propeller or not. In attempting to turn a steamer, the rudder should be shifted when the propeller is shifted, instead of waiting for the boat to lose its headway, for the rudder has the same general effect on the steering of the boat when the propeller is backing, for example, whether the boat itself is moving astern, or has not yet lost her headway and is still forging ahead. This rule is not strictly applicable to all boats, but it is a good general rule.

### Notes on Steamers.

71. (1) In making a landing, it is a common mistake to keep too much headway on, and to rely on backing the engines full speed to stop the boat. This is poor seamanship, as the engines may fail to back promptly, causing a collision or smash up, and if they do back hard, it throws unnecessary strain on them. Therefore, make landings with slow speed on the steamer.

(2) In landing alongside a ship's gangway in a strong current, do not let the tide catch your boat on the outboard bow, as this might sweep her underneath the gangway. The boat-line from forward should in all cases be used, the steamer being kept off a little from the side until it is fast, and then sheered in by the helm. A steamer or other boat may lie alongside safely in a strong current with a line from the inner bow, and the helm slightly over towards the ship.

(3) In towing with a steamer, the stern of the boat should be kept well down by shifting weights aft if necessary. This keeps

the propeller well immersed, and gives it a good hold on the water.

(4) When running in a seaway, speed should be reduced somewhat not only to avoid shipping seas, but to reduce the strain on the machinery due to the racing of the screw. In running into a sea, it is possible by careful nursing to make fair speed, watching the seas and slowing, or even stopping for a moment, as heavy ones are seen bearing down upon the boat. If the man who is running the engine has sufficient experience to regulate the speed in this way, it is convenient to leave this to him, if he can see ahead. If running more or less across the sea, it is well to heal up momentarily for a heavy wave.

(5) The water used in the boiler should always be obtained from the ship, as this is always distilled. Fresh water from shore often contains corrosive ingredients, or lime salts, and should never be used when it can be avoided. Salt water should never be used, and the water in the feed-tank should be frequently tasted and never allowed to grow brackish through leaky connections.

(6) When the steamer is about to be lowered, the fires should be started promptly, and steam got ready to try the engine by the time the boat is in the water. As soon as the steamer is in the water, if not before, the feed-pump or pumps must be worked by steam, and the engines turned back and forth, and the whistle, safety-valve, bell, and steering-gear tried. Failures to work must be immediately remedied.

(7) When the steamer is alongside a gangway, never permit any firing. Attention to the fires before coming alongside will prevent the necessity of doing this, and the dirt, and the inconvenience of having thick black smoke over the ship, is avoided. For the same reason, the use of the steam jet is to be avoided when alongside.

(8) Steamer crews are generally inclined to carry too little water in the boiler: a third to half a glass should be the rule.

(9) In water-tube boilers the fires may be forced, or suddenly hauled, or put out with a bucket of water, without danger of seriously injuring the boiler, but this should only be done when there is more or less of an emergency.

## ARMED-BOAT EXPEDITIONS.

### GENERAL REMARKS.

72. (1) There shall be no separate organizations or routine drills for "Distant-Service" or "Cutting-Out" expeditions of armed detachments in boats. The landing-force organization shall be utilized in all cases where an armed force is needed. Certain sections of a ship's landing-force—infantry or artillery or

both—with the arms, provisions, boat-equipment, etc., *that may be required by the special circumstances of the service*, shall be designated for the work in any case.

(2) One or more squads of a section may be retained on board ship, if their presence is not necessary for the service for which the boat is being equipped.

(3) The necessary number of men shall be selected from the regular special details of the landing-force—pioneers, messmen, signalmen, ambulance- and ammunition-parties—to accompany the expedition; these men may be distributed in the boats with the main body, or they may be assigned to separate boats as occasion requires.

(4) It would be quite impossible to anticipate and provide for every emergency of service in boats. Each case must necessarily be handled as a separate problem, and the regulations for the organization, equipment, and instruction of the landing-force and its various units, if carefully observed, can be made to supply the force—officers, men, and staff—that may be required in any case.

(5) When great haste is necessary, *the combatant part of the expedition, or a portion of it, shall be embarked at once*, with arms and ammunition, emergency-rations for two days, stowed in haversacks, canteens and regular boat-breakers filled, the boat-box and the boat-equipment enumerated in Art. 13. Reserve ammunition, extra provisions, and special equipment shall follow in separate boats. The “firing line,” so to speak, shall never be delayed, in an emergency, until extra provisions, water-breakers, and other articles are hoisted from holds and storerooms. The fighting force must not be hampered, and the material and supplies for its maintenance shall be supplied and forwarded *without undue haste or confusion, but with all care and with every attention to detail*.

(6) Communications between the expedition and the ship, by signal or otherwise, shall be provided for, in order that reserves of men and material may be supplied and forwarded, if necessary.

73. The following are some of the duties that might be required of armed-boat expeditions:

(1) To keep open navigation.

(2) To capture an enemy's crew while in the act of abandoning its ship.

(3) To go alongside, board and capture an enemy's ship, or to capture an unarmed ship or one being built or fitted out.

(4) Boarding duty in blockade.

(5) The entire landing-force of the ship, or a part of it, may land (a) when opposed, (b) when opposition is improbable, (c) on military duty for the protection of persons or property.

74. (1) It is evident that armed boats have so many possible uses that their complete enumeration would be difficult, and *to provide efficiently for all such cases by routine drills would be impracticable*.

(2) The final test in fitting out an expedition in any particular case would be: "Are the boats and the crews properly equipped and prepared for the service to be performed?"

### **SPECIAL INSTRUCTION FOR ARMED BOAT-CREWS.**

**75. Units of the landing-force**, when embarked in their boats, should be exercised at:

(1) *Target practice*.—This would include both target practice of the crew with rifles, fired from the boat, and target practice with boat-guns, both of which are fully described in Instructions for Small-Arm Target Practice.

#### **Landing.**

**76. (1) The method of landing an armed force** is fully described in the Landing-Force and Small-Arm Instructions, U. S. Navy.

(2) Boats equipped and manned for landing, especially those carrying guns to be used on shore, should occasionally be exercised at embarking and disembarking on a beach, supposing the landing to be made under fire.

#### **Boat-Crews.**

**77.** It is important that the running boat-crew in any case should be taken from the section of the landing-force assigned to that boat, and that this section should be comprised in the abandon-ship crew of the same boat.

### **ABANDON-SHIP.**

**78. On Signal for abandon-ship**, each man proceeds with the least possible delay to provide his assigned portion of the boat-equipment, and boats are lowered, equipped, manned, reported, and shoved off. For drill, men absolutely necessary in the engineer department will remain below, but a list of the names of such men will be submitted by the senior engineer-officer to the executive-officer. When actually abandoning ship, the furnace doors will be opened, fires hauled, and bleeders opened before the fire- and engine-room force leave their stations.

**79. Property.**—(1) Every reasonable effort will be made to save the log-book, muster-roll, accounts of officers and crew, cipher-code and other valuable papers. In case of fire or shipwreck, it will be the special duty of the pay-officer to secure and preserve the accounts of officers and men, all public money, and such other public papers and property, in the order of their value, as circumstances permit.

(2) If it is impossible to carry signal-books and other confidential papers, they should be burned, or otherwise destroyed, in the presence of an officer.

**80. Equipment.**—Every boat used for abandoning ship should have the following equipment:

(1) The complete boat equipment, including boat compass, tarpaulin, and medical box. Arm curtains will not be carried unless required by special circumstances.

(2) **Rations for three days**, or as much more as the boat will carry safely. One ration for this purpose is: 1 lb. bread,  $\frac{3}{4}$  lb. meat, and  $\frac{1}{2}$  gal. water. When actually abandoning ship, if time permits and if landing is probable, a small quantity of salt, pepper, coffee, and sugar may be provided for use on shore; but this will not be required at ordinary drill.

(3) At least two rifles and a supply of ammunition.

(4) Mess-gear and iron kettle.

(5) If possible, a sextant, nautical-almanac, Bowditch's-tables, chart, paper, and pencil. At least one boat, preferably that of the senior officer, must be so equipped.

**81. At least two officers** should go in every boat, if practicable, and carry service belt, revolver, ammunition, and binoculars, if supplied.

**82. Steamers.**—(1) In the case of steamers, all preparations must be made for hoisting out boilers before leaving the ship; but circumstances will determine whether or not they shall be hoisted out. If abandoning ship at sea, or in very rough weather, the boiler should be lifted out; but in smooth water, near land, the engine could be used to great advantage. Similarly, if abandoning ship in great haste, time might not permit the boiler to be hoisted out. In all cases, therefore, circumstances must govern.

(2) Men will be stationed to provide wrenches, pinch-bars, etc., for removing boiler, and the necessary purchases to lift it out.

(3) Masts, spars, and sails will always be provided. If the boiler is removed, the sail will be bent and mast stepped. If the boiler is to remain in the boat, coal and water must be provided and the mast and sails will be carried, but the sails need not be bent. In this latter case tools will be carried in the steamer so that in case of emergency the boiler and engine may be dismembered and thrown overboard.

**83. Secure.**—When SECURE! is sounded, boat-crews will secure their boats, open watertight doors, return supplies, and fall in abreast places assigned for equipping. The boat-officers will report when all is secure.

**84. Notes.**—(1) The boat-officer should see that all men sta-



tioned in his boat at this evolution are present, and that they understand their duties. If a man is unavoidably absent, he should be notified, after the drill, of his station and duties.

(2) Boats (except dinghies) should have not less than 12 inches freeboard when fully manned and equipped. If, after equipping, any boat is found to have less than this amount of freeboard, a portion of the crew should be permanently transferred by the executive-officer to some other boat. Ten inches is a fair freeboard for the dinghy class.

(3) Junior boats, which will usually not be able to obtain sextants, nautical-almanacs, etc., will keep near senior boats which are so equipped, after they abandon ship.

(4) The particular stations of each man in a boat at abandon-ship will be determined by the boat-officer, and the men will be carefully drilled to take their stations quickly, quietly, and without crowding or confusion. The position of each article of equipment must also be carefully specified and men stationed to stow articles must be thoroughly instructed with regard to the stowage-plan, according to a sketch of the boat clearly defining the position of water-breakers, boat-box, bread, meat, etc., otherwise there will always be confusion of the personnel and slovenly stowage of the equipment.

(5) It is important that the abandon-ship crew of each boat should comprise the detail of the landing-force assigned to that boat, increased by such additional men as may be necessary.



## PART V

# GENERAL INSTRUCTIONS CONCERN- ING SERVICE IN SHIP'S BOATS.

### DUTIES OF A BOAT-OFFICER.

NOTE.—Owing to the fact that many boats do not have a boat-officer, the general instructions for handling boats were written to cover the cases where a coxswain has charge. Boat-officers will also be governed by these instructions, in so far as they are applicable. The instructions under Article 85 apply particularly to boat-officers—who are assumed not to be of commissioned rank.

85. (1) When ordered to take charge of a boat, the boat-officer will report promptly to the officer of the deck, dressed in the uniform of the day and with appropriate side-arms.

(2) Sees boat lowered and manned, or manned at the boom and dropped down to the gangway. If boat was lowered for this duty, he sees boat-falls hauled taut.

(3) Sees all required equipment is in boat, and that boat-gear is in good order.

(4) Sees crew in place and in proper uniform, oars up-and-down, blades trimmed fore-and-aft, coxswain at his station.

(5) Reports to officer-of-the-deck that boat is alongside, manned, and ready for duty. Receives orders and makes sure that he understands them perfectly before leaving ship.

(6) The boat-officer will at all times require that the crew preserve silence and pull a strong, regular stroke, that all rules, concerning the handling and management of boats, whether under sails or oars, are carried out, that all boat-salutes are promptly made or returned, and that prescribed rules for boat-etiquette are strictly observed.

(7) In going alongside a man-of-war, use the port side, except when there are commissioned officers or their guests in the boat, or when the starboard ladder only is shipped. In all cases, however, the lee gangway should be used in heavy weather. Salute the colors, if hoisted, on stepping over the gangway, and report to the officer-of-the-deck.

(8) In ordinary weather, as a general rule, as soon as the boat-officer steps out of his boat at the gangway, he should order the coxswain to shove off and lie off the quarter. If, however, he simply has a brief report to make, or message to deliver to the officer-of-the-deck, he may leave his boat at the gangway (provided other boats are not approaching), make his report, ask permission to shove off, and leave immediately.

(9) If there is a strong tideway, or if he expects to be detained on board for some time, he should ask permission for his boat to haul out to the boom; and if the delay is likely to be long enough to make it worth while, he should ask permission for his crew to come on board—a privilege that is usually much appreciated by the men, who thus have an opportunity to see old shipmates, take a smoke, etc.

(10) In this connection, the attention of young officers is invited to the importance of treating their men with all due and proper consideration. If boat-officers thoughtlessly leave their boat-crews lying off the quarter in a tideway, or in excessively hot or cold weather, and otherwise subject them to unnecessary exposure or discomfort, it cannot but react against the interests of discipline and efficiency.

(11) When ready to leave the ship, the boat-officer should request the officer-of-the-deck to have his boat manned, or called alongside, but he should in no case give the orders himself, unless specially invited to do so—as is sometimes done when the officer-of-the-deck is much occupied.

(12) When the boat-officer must absent himself from his boat, as, for example, to call upon a consul, or do other duty on shore, he should give his coxswain positive orders concerning the duties to be performed during his absence.

(13) On his return to the ship the boat-officer will report the completion of his duty to the officer-of-the-deck. If the boat is no longer required, he will see that it shoves off and pulls out to the boom; or if it is to be hoisted, he will see the necessary preparations made and report when the boat is ready, unless the officer-of-the-deck excuses him from this duty.

(14) A boat-officer has general charge of the boat, but when carrying commissioned officers, the senior line-officer has authority to give directions, and if need be to take command; since by Navy Regulations the senior line-officer in a boat is responsible for its management and safety under all circumstances.

(15) When ordered on boat-duty the boat-officer should remember the men's meal-hours, and, if there is a likelihood of the boat not returning in time, he should ask the officer-of-the-deck to have their meals saved.

(16) **Boarding-duty.**—A frequent duty of a boat-officer is boarding. Every ship keeps a boarding-book, which should always be carried on boarding-duty. In this book is entered the following routine information: Name of vessel, nationality, name of captain (if man-of-war also obtain rank of captain or senior officer of group of ships); where from; kind of passage; special incidents of voyage; men-of-war sighted; probable date of departure, and where bound. Besides this, any other information which might be of value or interest. Frequently information as to date of commission of the senior officer, length of service on

station, etc., is of value in determining the proper interchange of courtesies. In such cases this information should be obtained. The boarding-book may be taken on board a merchant steamer and filled out, but when boarding a foreign man-of-war the boarding-book should be left in the boat out of sight, and the information entered after leaving the ship. Ordinary boarding-calls on foreign men-of-war are usually of a purely courteous nature; therefore, unless the boat-officer has a special message for the captain of the vessel, he should inform the officer-of-the-deck that he was sent to present the compliments of his commanding officer and to offer his services. The officer-of-the-deck of the boarded vessel will then be guided by his own instructions as to whether the boarding-officer shall see the captain or not. If he states that the captain requests to be excused, the boat-officer obtains the information which is desired, and requests permission to leave the ship.

(17) **If doing guard-duty**, or if sent on board the senior ship, a note-book is to be carried to record verbal orders which the boat-officer may receive. This note-book will be carried on board the senior ship and the orders recorded immediately they are received.

(18) **In delivering a message**, always first present the compliments of the officer from whom the message comes, then deliver the message.

### DUTIES OF COXSWAIN.

86. (1) **The coxswain of a boat** should be perfectly familiar with everything relating to the care and handling of his boat, and be competent to instruct his crew in all details of general service or drill.

(2) He is responsible to the officer in charge of the boat for its cleanliness and readiness for service, and he should constantly keep himself informed as to the condition and completeness of the boat-equipments, reporting all deficiencies to the boat-officer.

(3) He is responsible for the appearance and behavior of his boat-crew and that they always pull properly and conduct themselves in a seamanlike manner.

(4) Coxswains and boat-crews should remember that they represent their ship, and they should therefore be taught to take a pride in their own appearance and in that of their boats. The efficiency and smartness of a ship's boats and boat-crews generally reflect most clearly the tone of the ship.

(5) The coxswain is to be careful that his boat-crew is always properly dressed, paying particular attention to the following points:

(a) Hats and caps properly worn with ship's name square to the front, and no hair showing on the forehead below the hat or cap.

(b) That the brims of white hats are never turned down.

(c) That grommets are always worn in blue caps, except in windy weather, when he will direct that *all* grommets be removed.

(d) That knife-lanyards are worn under the collars.

(e) That trousers are never turned up, except in bad weather.

(f) That the men of the boat-crew are dressed alike as regards oilskins, but oilskins are not to be worn unless it is actually raining.

(g) That all members of the crew are in uniform in regard to footgear; that is, either that they all wear shoes or all go barefooted.

(h) That in cold weather boat-crews will have their overcoats at hand.

(i) Crews in running-boats (including engineer-crews in steamers) shall be dressed in the uniform of the day.

(6) Owing to the constant use of steamers in port, and their consequent greater liability to become soiled, coxswains must devote particular attention to the neat and ship-shape appearance of their boat and boat-crew.

(7) The coxswain of a steamer is especially responsible that the crew and enlisted passengers sit down in their proper places, that they do not sit on the gunwale, and that the men outside the canopy conduct themselves in a seamanlike and proper manner in extending salutes.

(8) Coxswains of steamers will devote particular attention to the proper handling of the canopy-curtains. When curtains are not required, they will have them *neatly* rolled and stopped up, and when in use they will be neatly stopped down to the wash-board. It is not ship-shape to stop down one corner of a side-curtain, but when running into a head-sea the coxswain may frequently find it necessary to lower the curtain forward, while it remains stopped up along the sides. Similarly it is frequently necessary to haul down the curtains on one side and leave them furled on the other. Under all circumstances, when the curtains are in use they must be neatly stopped down, as nothing is more slovenly than canopy-curtains hanging loosely and flapping to the wind.

(9) Coxswains of steamers must see that towels or clothing are never hanging in the boat when she is called away for service.

(10) Coxswains of steamers will require the stern-man to devote particular attention to the appearance of the stern-sheets of the boat. Cushion-covers will be kept neat and clean, the lantern filled, trimmed, polished, and the globe cleaned so that it will give a bright light. The boat-flag, when not in use, is to be kept neatly rolled on its flagstaff and triced up overhead, not hanging loosely from flagstaff, where it presents a slovenly appearance



and interferes with passengers. When the boat is called away for the use of commissioned officers, the stern-man will spread the boat-cloth neatly in the stern-sheets of the boat, and see the foot-cloths, or ladder (if used) on the proper side of the boat.

(11) When boats are called away, coxswains will go in the boat over the boom, will see that the crew is in the boat, that everything is ready, and then drop down to the gangway. The coxswain then reports to the officer-of-the-deck, or the boat-officer, that the boat is at the gangway ready for service, and in the absence of a boat-officer, receives his orders, which he must make sure that he clearly understands. In the absence of a boat-officer, he will come on board to report his boat, if necessary.

(12) On his return to the ship he will report that orders have been complied with. He will also report anything amiss that is visible from outside the ship, such as windsails which require trimming, ports to be squared, anything hanging over the side, or clothes being in improper places. He will see his boat properly hauled out to the boom.

(13) The crew shall not be allowed to leave the boats on shore without proper authority. If necessary for any member to leave the boat temporarily, the coxswain will report the fact to the officer-of-the-deck immediately on his return to the ship.

(14) The coxswain will never permit smoking in his boat during daylight, except when on detached service, surveying-duty, or on hunting or fishing expeditions. This rule forbids smoking in boats which are permitted to go out for pleasure sailing, except when special permission is obtained before leaving the ship; but this should be granted only in unfrequented ports.

(15) When boats are ordered to moor, they are to be reported "moored" by the coxswain to officer-of-the-deck.

## CARE AND CLEANING OF BOATS.

87. (1) The coxswain is responsible that his boat and all that belongs to it is kept in good order. When anything is lost or any repairs are required, he is to report the fact to his boat-officer. He is responsible that his boat-davits are clean, and is to report if any gear connected with them is not in good order.

(2) Care is necessary to see that the oars are properly coppered, leathered, and marked, that they are of the correct length, and are assigned to their proper thwarts. Use particular care at all times with the blades of the oars, as they are easily split or broken by rough handling, or by treading on them.

(3) Great care should be observed to maintain an efficient set of oars, having them neither too heavy nor too light. Ensigns, pennants, staves, and trucks demand careful attention. Also trailing-lines, rowlock-lanyards, boat-hooks, and the boat-equipment.

(4) Coxswains are always personally to superintend when their boats are being lowered, hoisted, or moored.

(5) Immediately that a boat is hoisted, the coxswain is to see her squared by the falls, dried out, boat-gear neatly stowed, the outside cleared of all marks, the plug out (except in life-boats at sea), and secured close to the plug hole with a lanyard. When the ship is at sea, life-boats will habitually keep their boat-plugs in.

### MISCELLANEOUS INSTRUCTIONS.

88. (1) **Ship's boats** will always keep a sharp lookout for signals, both from their own and from the senior officer's ship.

(2) **Boat-ensigns** are not to be used for boats to which they do not belong, and the insignia on the head of the pennant-staff and flagstaff will be as prescribed for the rank of the officer to which it belongs. The insignia on the head of the pennant-staff and flagstaff are identical and are as follows:

- (a) Flag-officer..... Gilt lance-head.
- (b) Captain ..... Gilt ball.
- (c) Commander ..... Gilt star.
- (d) Lower rank ..... Flat truck.

(3) **Boat-ensigns** are half-masted whenever the vessel to which the boat belongs half-masts her colors. If absent out of sight of the ship, and men-of-war in vicinity have colors half-masted, it is proper to follow their movements.

(4) Except when the ship is full-dressed, the ensign is never to be left flying in boats made fast astern, or at the boom.

(5) A boat under sail is never to fly its ensign at a staff, but the ensign will be flown from the peak, or head of the mainsail.

(6) As a general rule, boats pulling less than four oars are not to fly boat-ensigns.

(7) Boats are not to lie alongside a gangway or landing place, but are to lie off while waiting. In case a long wait is probable, or in bad weather, or on occasions at night, permission may be asked to make fast to the boom, also for the crew to come on board.

(8) Small gear should not be left in boats which remain at the boom after sunset, as otherwise they may be stolen by passing shore-boats.

(9) When fresh provisions are being carried in a boat, they should always be covered with a tarpaulin.

(10) Racing boat-crews are never to land, without special permission from the executive-officer.

(11) If a boat-crew is away until after 11.00 p. m., the men may be allowed to sleep in until 6 bells in the morning. Time is to be taken five minutes after the boat is hoisted or secured for the night.



(12) **Recalls** are to be obeyed as soon as seen.

(13) Steamers will be coaled and watered for the day's service during morning watch, or at a stated time in the day's routine.

(14) When a visiting-party goes alongside, the petty-officer in charge thereof will go on board and obtain permission before allowing any of the visiting-party to leave the boat.

(15) If permission is granted, he allows the party to come on board, each one saluting, if colors are hoisted, as he crosses the gangway. If the boat is to wait, it shoves off and lies off the quarter, as above mentioned, unless the officer-of-the-deck gives permission for it to haul out to boom. The regular crew will remain in the boat unless the officer-of-the-deck grants permission for it to come on board.

(16) A boat shall always haul clear of the shore landings while waiting.

### BOATKEEPERS.

89. (1) **Boatkeepers** are detailed by the coxswain of the boat, usually by thwarts in rotation, two men being assigned for one day, in order that they may relieve each other.

(2) Both boatkeepers of a running-boat clean her out during the morning watch. Boats must be in all respects ready for use by 8.00 a. m.

(3) The boatkeeper of the forenoon watch goes into his boat (when at boom) at 8.00 a. m., dressed in the uniform of the day.

(4) One of the boatkeepers is always to be in his boat when she is at the boom, while the ship's colors are hoisted, unless ordered by the officer-of-the-deck to come on board, on account of bad weather. If ordered in on this account, they will remain on deck in sight of their boats, and watch and tend them from that position.

(5) They should be careful that the oars and other gear in their boats are always neatly placed, and that the awning is properly spread. They will wipe out their boats and touch up the bright-work as often as necessary. They will, if necessary, haul their boat up to the boom in order to clear boats coming alongside the gangway.

(6) When not otherwise engaged, boatkeepers will always sit up properly in their boats, and will never lounge or read.

(7) When boat-awnings are not spread they are to stand up and salute all officers who pass their boats, or who come alongside or leave the gangway.

(8) If awnings are spread, they will sit erect and salute.

(9) When more than one boat is at the boom, boatkeepers will salute together.

(10) At morning or evening colors boatkeepers stand facing the

ship's colors and salute as if on deck. If boat-awnings are spread, they will be furled at the *first call* in the evening.

(11) The rules regarding salutes extended by boatkeepers apply to all men in boats at the boom, or riding astern. All men in such boats salute together.

## NOTES ON MANAGEMENT AND HANDLING OF BOATS.

90. (1) Boat-crews are always to man their boats over the boom, and all of the crew should be in the boat in about one minute after the pipe or call. The crews of running-boats should remain on deck near lower-boom, waiting for a call. A boat should never require longer than three minutes after being called away before reporting ready to shove off from the gangway.

(2) Boat-crews are to pull a smart, steady stroke at all times. The first part of the stroke is to be pulled with straight back and arms, keeping eyes always in the boat, body to move directly to the front and rear. Always use the back in pulling.

(3) When laying on oars, they must be horizontal with blades feathered and the boat-crew sitting upright with both hands on the handle of the oar. Lounging on the oars must not be permitted.

(4) When oars are tossed, they must be held vertically, with blades in fore-and-aft plane, handles of oars on bottom-boards, the wrist of the inboard hand resting on thigh, outboard hand grasping loom at height of chin, crew sitting upright.

(5) In tossing after the command WAY ENOUGH! oars are tossed to an angle of 45 degrees and then carefully and quietly boated.

(6) The practice of cutting close across the bow or stern of a ship, under lower-booms, or around points of land, is to be avoided.

(7) No one except the coxswain and boat-officer are ever to be permitted to sit abaft the backboard.

(8) When under sail:

(a) Never hesitate to reef in good time.

(b) Always see sails well set and trimmed according to the direction of the wind.

(c) See that sheets are never belayed.

(d) See that crew is properly stationed for making and shortening sail, reefing, and tacking.

(e) Trim the boat by shifting crew or ballast, as required.

(f) Require crew to sit on thwarts. In making sail no one will stand up, except when absolutely necessary, and even then only on bottom-boards of the boat.

(g) Remember that a loaded boat carries more way than an empty one.

(h) In coming alongside, allow plenty of room for rounding to; the mast should be unstepped immediately the sail is

lowered. If for any reason the boat is likely not to come alongside satisfactorily, it is seamanlike to tack or wear and try again.

(9) Boats with full crews will always pull out from gangway to boom. They will never haul out by the grabrope when there are more than three men besides the coxswain in the boat.

(10) Boats on ordinary service will, when the weather is not inclement, use sail in all cases where it will not cause delay in making their trip.

(11) **Boat-lines** should be hove to the bowman whenever a boat comes alongside in a strong tideway, or when a heavy sea is running, in order to assist in holding the boat in place.

### ABBREVIATED RULES FOR COXSWAINS.

#### 91. (1) Always:

- (a) See required equipment in boat.
- (b) See key to boat-box in boat before leaving the ship.
- (c) See boat and boat-gear clean and ship-shape.
- (d) See crew in uniform.
- (e) See that oarsmen use oars assigned their thwarts.
- (f) Require crew to maintain silence in boat.
- (g) Rise and salute superior officer when he enters or leaves boat.
- (h) See that enlisted men who are passengers in stern-sheets rise and salute commissioned officers when they enter boat.
- (i) In getting up, tossing, boating oars, etc., see that men handle oars smartly with arm muscles, keeping body as erect as possible.
- (j) Always give commands in a clear, sharp, and distinct voice.
- (k) Give preparatory commands, when they are necessary to prevent taking the crew by surprise.
- (l) Give commands at proper period of stroke—that is, when the blade is in the water near the beginning of the stroke.
- (m) Require crew to pull a strong, regular stroke, using the back.
- (n) Require crew to feather their blades.
- (o) When laying on oars, see that crews sit upright, with hands on oar handles, blades trimmed horizontal.
- (p) Keep boat bows-on to a heavy sea.
- (q) Watch the ship for signals.
- (r) Obey boat-recall as soon as made out.
- (s) See fenders over the side when coming alongside a gangway or landing.
- (t) See sheets tended while under sail, never belayed.
- (u) See sails well set and trimmed.

- (v) Reef in time.
- (w) See that every duty in a boat is done in a sharp, quick, seamanlike manner.
- (x) Correct every infraction of regulations the moment it occurs.
- (y) In hoisting the boat, hook the forward fall first.
- (z) Report, immediately on return to the ship, any damage to boat or loss of boat-gear or equipment, and circumstances attending same.
- (2) **Never:**
  - (a) Belay a sheet while sailing.
  - (b) Attempt to gybe a main-boom in a fresh breeze.
  - (c) Stow away boat-flag when wet; colors will run.
  - (d) Unhook forward fall first in lowering.
  - (e) Have after fall hooked when forward one is unhooked.
  - (f) Carry heavy weights in extreme ends of boat.
  - (g) Go over a ship's after gangway, to or from a boat, when colors are hoisted, without saluting.
  - (h) Allow talking in a pulling-boat while under way.
  - (i) Allow men to leave boat at landing without proper permission.
  - (j) Lay alongside shore landing longer than is required to land.
  - (k) Pass a senior boat without permission.
  - (l) Try to steer in a heavy seaway without a steering-oar.
  - (m) Try to land through surf, unless expert in doing so, unless absolutely necessary.
  - (n) Leave boat after it is capsized, until rescued.
  - (o) Permit the crew to lounge when laying on oars.
  - (p) Permit any member of the crew to stand on thwarts.
  - (q) Permit any member of crew to climb a mast. Unstep if necessary.
  - (r) Permit towels or clothing to be hung up in a duty-boat.
  - (s) Jamb a helm down too suddenly or too far.

## PART VI

# BOAT SALUTES AND BOAT ETIQUETTE.

**92. Salutes shall be exchanged between boats meeting or passing each other, as indicated in the table on the following page. The junior will always salute first, and the senior will return the salute with the hand.**

**93. (1) In boats fitted with swivel rowlocks which are so curved as to render tossing impracticable, oars will be trailed in all cases, instead of being tossed. Such boats will always have the oars secured by trailing lines.**

**(2) In steamers, engines are to be stopped in all cases in which pulling-boats toss, trail, or lay on oars.**

**(3) In laden boats, towing boats, or boats under sail, make the hand salute only, on all occasions.**

**(4) Officers not having their distinctive flag or pennant flying will receive the hand salute only, whether they are in uniform or civilian's clothes.**

**94. (1) Coxswains in charge of boats rise and salute when officers enter or leave their boats, also when their boats are saluting commissioned officers in other boats or returning a salute from them; but when steering a loaded or towing boat, or a boat under sail, they will not rise, but will salute with the hand only.**

**(2) Enlisted men who are passengers in the stern-sheets of a boat will always rise and salute when a commissioned officer enters or leaves the boat.**

**(3) Officers in a boat will rise and salute commanding officers or flag-officers when they enter or leave a boat.**

**(4) Juniors always get into a boat ahead of, and leave it after, their seniors, unless the senior officer in the boat gives orders to the contrary.**

**(5) As a general rule the seniors take the seats furthest aft; juniors will leave such seats for their seniors.**

**95. (1) At morning or evening colors, boats passing near a U. S. naval vessel, or when lying off a foreign man-of-war, will salute as follows:**

**(2) Pulling-boats by lying on oars, and steamers by stopping engines. Coxswains of the boats will stand and salute, and members of a steamer's crew outside of the canopy, will stand facing toward the colors and salute when the flag reaches truck or taffrail.**



## Rank of the Senior Officer in the boat to be saluted.

Rank or rate of the senior in the saluting boat.	Flag-Officer or Commandore, with the flag flying.	Commanding Officer, with pennant flying.	Commissioned Officer	Midshipman and Warrant Officer.
Flag-Officer or Commandore.	Junior salutes with hand.	Junior salutes with hand.		
Commanding Officer.	Stops engine, or lays on oars, and salutes with hand.			
{ Staff-Officer with the rank of Captain or Commander. Marine Officer with rank of Col. or Lt. Col.	Stops engine, or lays on oars, and salutes with hand.	When meeting a Senior Commanding Officer, or immediate commanding officer, stops engine, or lays on oars, and salutes with hand.	Junior salutes with hand.	
	Stops engine, or tosses or trails oars, and salutes with hand.	Stops engine, or lays on oars, and salutes with hand.	Junior salutes with hand.	
Commissioned Officer.	Stops engine, or tosses or trails oars, and salutes with hand.	Stops engine, or lays on oars, and salutes with hand.	Junior salutes with hand.	Junior salutes with hand.
Midshipman and Warrant Officer.	Stops engine, or tosses or trails oars, and salutes with hand.	Salutes with hand.	Junior salutes with hand.	Junior salutes with hand.
Officer and Coxswain in loaded or towing boat, or boat under sail.	Stops engine, or tosses or trails oars, stands and salutes with hand.	Stops engine, or lays on oars, stands and salutes with hand.	Stands and salutes with hand.	Salutes with hand.



96. (1) When a steam launch salutes another boat in passing, or when it passes a ship that parades a guard or otherwise salutes an officer in the boat, the members of the crew outside the canopy will stand at attention, facing the boat or vessel.

(2) Similarly, if the steamer is carrying an officer for whom a salute is being fired, men outside the canopy will stand at attention, facing the saluting ship. The engines are stopped at the first gun, and the boat headed up parallel to the saluting ship.

97. (1) **Boatkeepers** and all other men in boats that are not under way and not carrying an officer, *i. e.*, at the booms or at a landing, will, when boat-awnings are not spread, stand and salute when an officer comes alongside, leaves the side, or passes near them, and will remain standing until the boat passes or reaches the ship's side. If boat-awnings are spread, they will sit at attention, Art. 99, (1), and salute with the hand without rising.

(2) **Men working** on the ship's side do not salute, but continue their work, except when the bugle sounds the call *Attention*.

98. (1) **Salutes** will be extended to foreign military or naval officers, or officers of our own army, marine corps, naval militia or revenue cutter service, in the same manner as to U. S. naval officers of corresponding rank. This rule applies alike afloat and ashore.

(2) No junior shall ever pass a senior in a boat going in the same direction without first obtaining permission to do so.

99. (1) **The position of attention** in a boat is sitting erect on thwart or in stern-sheets.

(2) **At landing-places**, officers are saluted by the crew of a pulling-boat sitting at attention, and by the coxswain rising and saluting with the hand.

100. (1) **Coxswains** will never allow the crew to talk while pulling.

(2) Enlisted men who are passengers in running-boats which contain officers will maintain silence.

101. (1) **Boats at landings** will always show deference and respect to boats of other ships of our own or of a foreign service. Coxswains will remember that landings are for the use of all, that they should exercise patience and forbearance in awaiting their turn to go alongside, and when once alongside they should give way for other boats as soon as possible. In such cases boats carrying seniors should be given the opportunity to land first, and officers will be saluted and in every way treated with the deference and respect due their rank.

(2) It should be remembered that boats at a landing come more intimately into contact with officers and men from other ships than at any other place; therefore, a strict observance of all courtesies by a boat-crew will reflect credit upon the ship. If a doubt exists about the rank of an officer in a boat, it is

preferable to salute, rather than risk neglecting to salute one who is entitled to that courtesy.

**102. To indicate the rank of officers** when approaching a ship in a steamer without their distinctive flag or pennant displayed in the bow, the coxswain may sound the following signals with the steam-whistle:

- (1) *4 short blasts* for flag-officers.
- (2) *3 short blasts* for commanding officers or chief of staff.
- (3) *2 short blasts* for other commissioned officers.
- (4) *1 short blast* for all others.

**103. When approaching a ship at night**, intending to go alongside, the replies given to the "hail" will be in accordance with the rank or official position of the senior officer in the boat, as follows:

- (1) Flag-officer: "Flag."
- (2) Division Commander, not in command of a ship: "——— Division." (Giving number of his division.)
- (3) Chief of staff, if not in command of the flagship: "Fleet."
- (4) Commanding officer: Name of ship under his command.
- (5) Other commissioned officers: "Aye, Aye."
- (6) Other officers: "No, No."
- (7) Enlisted men and marines: "Hello."
- (8) Boats not intending to go alongside: "Passing."

# PART VII

## RULES OF THE ROAD

AND

## BUOYAGE SYSTEM IN U. S. WATERS.

### RULES OF THE ROAD.

NOTE —The following portions of the "Rules for Preventing Collisions at Sea, and upon Inland Waters of the United States," apply to boats.

#### Lights.

104. The rules concerning lights shall be complied with in all weathers from sunset to sunrise.

(1) All power-propelled boats under twenty-six feet in length shall carry aft a white light to show all around the horizon, and forward, lower than the white light aft, a combined lantern showing red to port and green to starboard, so fixed as to throw the light from right ahead to two points abaft the beam on each side.

All power-propelled boats designed to be carried on board ship, and twenty-six feet or more in length, shall carry (a) a bright white light as near the stem as practicable showing ten points on each side of the vessel; that is, from ahead to two points abaft each beam; (b) a white light aft to show all around the horizon; (c) a screened green side light on the starboard side and a screened red side light on the port side, constructed and fixed as prescribed for steam vessels.

(2) **Rowing-boats**, whether under oars or sail, shall have ready at hand a lantern showing a white light which shall be temporarily exhibited in time to prevent collision.

(3) For an *anchor-light* an ordinary hand-lantern showing a white light is to be exhibited when required.

#### Sound-Signals for a Fog.

105. (1) All power-propelled boats designed to be carried on board ship shall be provided with a whistle or other sound-producing appliance capable of producing a blast of two seconds or more duration.

(2) All power-propelled boats designed to be carried on board ship, and twenty-six or more in length shall carry an efficient fog horn and an efficient bell.

(3) In fog, mist, falling snow, or heavy rainstorms, whether by day or night, a power-propelled boat under way shall sound on its whistle, at intervals of not more than one minute, a prolonged blast of two or more seconds.

### Speed in Fog.

106. Boats shall, in a fog, mist, falling snow, or heavy rain-storms, go at a moderate speed.

### Steering and Sailing Rules.

107. (1) **When two boats under sail** are approaching one another so as to involve risk of collision, one of them shall keep out of the way of the other, as follows:

(a) A boat which is running free shall keep out of the way of a boat which is closehauled.

(b) A boat which is closehauled on the port tack shall keep out of the way of a boat which is closehauled on the starboard tack.

(c) When both are running free, with the wind on different sides, the boat which has the wind on the port side shall keep out the way of the other.

(d) When both are running free, with the wind on the same side, the boat which is to windward shall keep out of the way of the boat which is to leeward.

(e) A boat which has the wind aft shall keep out of the way of other boats.

(2) **When two boats under steam or oars** are meeting end-on, or nearly end-on, so as to involve risk of collision, each shall alter her course to starboard so that each may pass on the port side of the other.

(3) When two boats under steam or oars are crossing so as to involve risk of collision, the boat which has the other on her own starboard side shall keep out of the way of the other.

(4) When a boat under steam or oars and a boat under sail are proceeding in such directions as to involve risk of collision, the boat under steam or oars shall keep out of the way of the boat under sail.

(5) Where by any of these rules one of the two boats is to keep out of the way, the other shall keep her course and speed.

(6) Every boat which is directed by these rules to keep out of the way of another boat shall, if the circumstances of the case admit, avoid passing ahead of the other.

(7) Every boat under steam which is directed by these rules to keep out of the way of another boat shall, on approaching her, if necessary, slacken her speed or stop or reverse.

(8) Every boat, whether under steam, oars, or sail, when overtaking any other shall keep out of the way of the overtaken boat.

(9) Any boat under steam approaching another which is in sight of her shall indicate what course she intends to take by the following signals on her whistle:

(a) One short blast to mean "I am directing my course to starboard."

(b) Two short blasts to mean "I am directing my course to port."

(c) Three short blasts to mean "My engines are going at full speed astern."

(d) The words "short blast" to mean a blast of about one second's duration.

(10) In a narrow channel every boat under steam, or oars shall, when it is safe and practicable, keep to that side of the fairway or mid-channel which lies on the starboard side of such boat.

(11) Whenever a boat under steam is nearing a short bend or curve in a river or harbor she should give a long blast on the steam whistle.

(12) Boats under steam when leaving a ship to proceed ahead and cross to the other bow should give the proper signal on steam-whistles.

(13) Due regard shall be had to all dangers of navigation and collision, and to any special circumstances which may render a departure from the above rules necessary in order to avoid immediate danger.

## BUOYS.

### Uniform System of Buoyage in United States Waters.

108. (1) In coming from seaward, *red* buoys mark the starboard or *right* hand side of the channel, and *black* buoys the port or *left* side.

(2) Dangers and obstructions which may be passed on either side are marked by buoys with *black* and *red horizontal* stripes and may be left on either hand.

(3) Buoys indicating the fairway are marked with *black* and *white* vertical stripes and should be passed close to.

(4) Sunken wrecks are marked by the red and black obstructive buoys described in par. 2. In foreign countries green buoys are frequently used to mark sunken wrecks.

(5) Quarantine buoys are yellow.

(6) As white buoys have no special significance they are frequently used for special purposes not connected with navigation.

(7) The starboard and port buoys are numbered from the seaward end of the channel, the *black* bearing the *odd* and the *red* the *even* numbers.

(8) Perches with balls, cages, etc., will, when placed on buoys, be at turning points, the color and number indicating on which side they shall be passed.



# PART VIII

## THE NAVY SIGNAL-CODE.\*

### GENERAL REMARKS.

109. The United States Navy Signal-Code is embraced in three books: (1) The General Signal-Book, (2) The Tactical Signal-Book, (3) The Boat-Book.

110. The General Signal-Book contains:

(1) The introduction to the Signal-Book, which comprises the complete instructions for transmitting the U. S. Navy Code by methods of day-, night-, and fog-signalling.

(2) A collection of sentences alphabetically arranged under the leading words, comprising what is known as General Signals.

(3) Boat-signals.

(4) A syllabary of letters, syllables, words, and phrases called for convenience "Telegraphic-Dictionary."

(5) The "Geographical-List."

(6) A list of the vessels of the U. S. Navy, with their signal letters as assigned in the International-Code by the U. S. Treasury Department.

111. The Tactical Signal-Book contains:

(1) The introduction to the Signal-Book, the same as in the General Signal-Book.

(2) Definitions, instructions, diagrams, etc., and signals for handling fleets in tactical evolutions and movements.

112. The Boat-Book contains description, equipment, and instructions for drills and exercises with boats, together with a brief summary of the introduction to the signal-book, and a list of such tactical and other signals, taken from the General Signal-Book, as would be useful in the maneuvering of a flotilla of boats under steam, oars, or sail; embarking and disembarking a landing force; or in communicating with boats on detached duty.

113. In communicating between vessels, or between shore-stations and vessels of the U. S. Navy, the following methods of signalling may be employed:

- |                             |                                |
|-----------------------------|--------------------------------|
| I. Flag-Signals;            | VI. Very's Night-Signals;      |
| II. Wig-Wag Signals;        | VII. Shapes (none authorized); |
| III. Flash- or Dot-Signals; | VIII. Wireless;                |
| IV. Two-Arm Semaphore;      | IX. International-Code.        |
| V. Electric Night-Signals;  |                                |

NOTE.—(1) In communicating between the armed forces of the U. S. Army and U. S. Navy, the U. S. Army and Navy Wig-Wag Code will be

\* NOTE.—This chapter on Navy Signals is inserted for convenience of reference. Such parts of the Introduction to the Signal-Books as are not confidential have been copied, and nothing in this chapter supersedes or modifies the instructions contained therein.

used, supplemented by such other means as are or may hereafter from time to time, be agreed upon.

(2) In communicating with merchant vessels, or other than those of the U. S. Navy, the International-Code will be used, unless other methods are mutually agreed upon.

## FLAG-SIGNALS.

(See Plates.)

114. (1) The flags and pennants used in transmitting the U. S. Navy Code consist of twenty-six alphabet flags (the same as those of the International-Code), ten numeral-flags and three repeaters, and the following additional flags and pennants.

Cornet.	Affirmative-flag (same as alphabet-flag "P").
Answering-and-Divisional Point-pennant.	Negative-flag (same as alphabet-flag "K").
Preparatory-pennant.	Annulling-flag (same as alphabet-flag "N").
Interrogatory-pennant.	

(2) To prevent confusion and mistakes, due to the similar sounds of several letters and in calling out flags to be hoisted in a signal, the names below may be used, instead of the letters. Names are assigned to letters as follows:

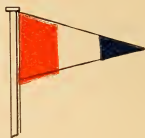
A = After.
B = Battle.
C = Cast.
D = Dog.
E = Eagle.
F = Frank.
G = George.
H = Have.
I = Island.
J = Jack.
K = King.
L = Love.
M = Money.
N = Noise.
O = Oboe.
P = Pistol.
Q = Quack.
R = Rush.
S = Sail.
T = Tare.
U = Union.
V = Vice.
W = Watch.
X = X-Ray.
Y = Yoke.
Z = Zed.

## PLATE 1.

*Alphabetical Code Flags and Pennants*  
*(Same as International Code)*



ABLE



EASY



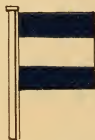
ITEM



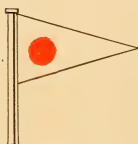
BOY



FOX



JIG



CAST



GEORGE



KING



DOG



HAVE



LOVE



MIKE



RUSH



WATCH



NAN



SAIL



X-RAY



OBOE



TARE



YOKE



PUP



UNIT



ZED



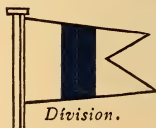
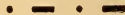
QUACK



VICE

The last ten letters have secondary meanings as numerals in Flag Code, Ardois and Very.



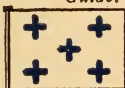








## PLATE II.

*Cornet.**Numerals.**Ardois—Upper light pulsated.**Very—Rocket } • { Rocket.**None in other codes.**Repeaters.**1st Repeater.**2d Repeater.**3d Repeater.**Indicators.**Flashed in Ardois. Preceded by call prefix in Sound, and Flash, and by rocket in Very.**Squadron.**Division.**Torpedo Flotilla.**Submarine Flotilla.*



Day.	Ardois.	Flash.	Sound.	Very.
 <i>Answering and Divisional.</i>	<i>Answering.</i>			
	<i>Repeat Display.</i>			.
	<i>Interval and Divisional.</i> <sup>6</sup>			
	. — . —			{ . — }
<i>K</i>  <i>Negative or No!</i>				
<i>L</i>  <i>Preparatory.</i>	<i>pulsated</i>			
<i>Signal of Execution.</i>				
. . . .		<i>Rocket.</i> 		
<i>N</i>  <i>Annuling.</i>	<i>light</i>			
<i>O</i>  <i>Interrogatory.</i>				
<i>P</i>  <i>Affirmative or Yes!</i>	<i>Upper</i>			













## PLATE IV.

Day.	Ardois	Flash	Sound	Radio	Very
 Danger and Designating. Navy List Use.	Danger.				Danger.
	None.				Repeated.
	Upper light pulsating.	Designating. — — — — — • — • —			
 I. Dispatch. Break down. Man overboard.	•• Flashed "Man Overboard"		Toots for ten seconds.		
 Guide. Guard.	Convoy.		Full Speed.		
	 Position Division Guide.		 Meal.		
 General Recall. Boat Recall with numeral above.	Submarine Distinguish-				
	 ing and Warning Flag.		 Battle Efficiency.		
 Red Cross.	 Quarantine		 Church		













*Distinguishing Flags, Pennants, Night, and Sound Calls.*  
*(All Electric Calls to be flashed except for the Whole Force which will be a steady display, and for The Squadron and Division Movement Signals, which will be pulsated.)*




























To call the Whole Force } *By Day, General Signal*  
 } *By Night, Cornet (steady display)*

*Movement Flags and Calls.*

<i>Squadron Movements</i>			<i>Division Movements</i>		
	V	E		V	E
<i>By Day,</i>					
<i>Sound 4 sec. . . .</i>			<i>Sound 4 sec. . . .</i>		
					

*Distinguishing Flags and Calls.*

<i>1<sup>st</sup> Squadron</i>			<i>2<sup>nd</sup> Squadron</i>		
	V	E		V	E
<i>By Day,</i>			<i>By Day,</i>		
<i>Sound, ——— for 7<sup>s</sup></i>			<i>Sound, 2 Long Blasts of 7<sup>s</sup> each</i>		
					

<i>1<sup>st</sup> Div.</i>			<i>2<sup>nd</sup> Div.</i>			<i>3<sup>rd</sup> Div.</i>			<i>4<sup>th</sup> Div.</i>		
<i>Day</i>	V	E	<i>Day</i>	V	E	<i>Day</i>	V	E	<i>Day</i>	V	E
											
											
											
<i>. . . .</i>			<i>. . . .</i>			<i>. . . .</i>			<i>. . . .</i>		

115. The following additional flags and pennants are not used directly in the transmission of the U. S. Navy Code, but have either a special or personal distinguishing character, or a tactical signification in connection with the Tactical Signal-Book.

Quarantine flag.	Battle efficiency pennant.
Guard-and-guide flag.	Church-pennant.
Convoy-and-position pennant.	Red-Cross flag.
Danger-and-designating flag.	International-Code pennant.
Dispatch-and-breakdown flag	President's flag.
(same as alphabet-flag	Secretary of the Navy's flag.
"I").	Assistant Secy. of Navy's flag.
General-recall flag.	Union-Jack.
Powder-and-firing flag (same	Admiral's flag.
as alphabet-flag "B").	Commodore's broad-pennant.
Squadron-movement flag.	Senior Officer's pennant.
Divisional-movement pennant.	Narrow-pennant.
Meal and full-speed pennant.	Submarine distinguishing and
	warning flag.

116. The following flags and pennants are used for distinguishing and designating various units:

Battalion-flags.	Fleet distinguishing-pennants.
Squadron-flags.	Ships' distinguishing-pennants.
Divisional-pennants.	

117. (1) **The cornet** hoisted at the *fore*, or at the highest gaff or signal-yard, if the foremast head cannot be used for its display, is a peremptory order for all officers and others absent from the ship to repair on board at once. It also indicates that a ship is under sailing orders and about to get under way. A gun fired denotes urgency.

(2) The cornet hoisted half yard-arm high is a *call* for the *whole* force to receive a semaphore or "wig-wag" message. The cornet will be hoisted up to the yard-arm at the end of the message, and hauled down as an acknowledgment of the answer.

118. (1) **The answering-pennant** is to be hoisted where it can be best seen, at the truck, gaff, or yard-arm, in answering, and kept there until the signal is hauled down.

(2) When a spelled-out message from the syllabary or "Telegraphic" portion of the Signal-Book is being sent, the pennant may be lowered *half-way* only, and run *close up* in answer to each hoist.

(3) All signals are to be answered as soon as they are read and their meaning understood. *Ships exempt from obeying a signal shall not answer.*

(4) In case a signal is *not understood* a signal to that effect shall be made at once, which signal is the hoisting of the interrogatory-pennant.

(5) The repeating of any signal by hoisting it, shall be taken as equivalent to an acknowledgment, and no answering-pennant will be displayed, except by squadron- and division-commanders.

(6) In order that there shall be no uncertainty as to the signal that is answered by a flagship, the latter shall display the *answering-pennant under the distinguishing-pennant of the ship making the signal*.

NOTE.—The answering-pennant is used as a *divisional-point* to represent the divisions of mixed quantities, referred to by a signal made at the same time or just previously. Thus in reporting amounts of money or money values it is used as the decimal-point. In reporting decimal-fractions it represents the decimal-point. Special provision is made in the Signal-Books for sending time, date, latitude and longitude signals without the use of the answering-pennant for a divisional-point.

119. (1) The preparatory-pennant hoisted over a signal means "*Prepare to execute the signal now shown as soon as the signal of execution is made.*"

(2) The *signal of execution* is the starting from its point of hoist of the signal (without the preparatory-pennant) or of some other signal relating to the same movement or maneuver. Thus, if the signal were made to prepare to moor ship, the signal of execution might be the hauling down later of a signal to "moor ship in succession in inverted order."

(3) The *preparatory-signal* should be hoisted in ample time to admit of all necessary preparations being made before the signal of execution is displayed.

(4) The preparatory-pennant is hoisted as a *single display*, preparatory to certain routine ceremonies as explained under "colors signal."

120. (1) The interrogatory-pennant, when hoisted over a signal, changes its meaning to the interrogatory form. For example, "Land I see," with the interrogatory-pennant over it, would mean, "Land do you see"; or, the signal "Can keep position at standard speed with boilers in use," would mean, with this pennant over it, "Can you keep position at standard speed with boilers in use?" Thus "Get under way" may similarly be converted into "May I get under way?"

(2) The *single display* of the interrogatory-pennant in answer to a signal means, "I do not understand," or "I cannot make out the signal you are displaying," or "You are repeating the signal wrong," or "What signal is that?"

121. (1) The affirmative-flag, when hoisted in answer to a signal, means assent, consent, permission granted, or "Yes." The ship's distinguishing-pennant should be displayed over it in order to avoid any chance of a misunderstanding regarding the ship to which it is addressed as an answer.

(2) Hoisted over a signal it means that the specific work or service called for by that signal has been completed, or the duty has been performed.



(3) It is hoisted *alone* as prescribed in the Tactical Signal-Book when *getting underway* with other vessels in formation; when ready to steam ahead after "*man-overboard*"; in mooring ship; and, in other cases, to indicate that some duty called for by a previous signal has been completed.

**122. The negative-flag** when hoisted over a signal means "Not granted" or "No." The ship's distinguishing-pennant should be displayed over it, in order to avoid any chance of a misunderstanding regarding the ship to which it is addressed as an answer. Hoisted *over* a signal, it puts the message in a negative sense.

**123. Annulling-flag.**—(1) The hoisting of this flag annuls all signals at that moment displayed on the same mast. *In this case only*, it is to be answered by *hauling down* all answering-pennants which may have been hoisted in reply to the signals. In case ships have the signal or signals hoisted, they will also display the annulling-flag, and haul all down with their hauling down on the flagship.

(2) Hoisted alone it annuls the last signal made, or the last hoist.

(3) Any signal previously made may be annulled by hoisting the signal again, with the annulling-flag either *over it*, or *hoisted at the same time*.

(4) A whole syllabary or spelled-out message from the Signal-Book may be annulled by hoisting the signal TM (see TM, Tactical Signal-Book).

**124. The quarantine-flag** is hoisted at the foremast head or most conspicuous hoist, on all infected ships, or ships in quarantine. It should be kept flying day and night, and be carried in the bows of all boats belonging to the ship having this flag hoisted. It being the international signal for denoting that *pratique* has not been granted to the ship displaying it, it should be hoisted by incoming ships as a signal to the health officer of the port that *pratique is desired*.

**125. Guard-and-guide flag.**—(1) This flag when used *at anchor* is a *guard-flag* and indicates that the ship upon which it is hoisted is charged with the *guard-duty* of the division, squadron, or force then at anchor within signal distance. It will be hoisted at the *fore* between sunrise and sunset. From sunset until sunrise a *red lantern* will be displayed at the *fore-truck*.

(2) To call a *guard-boat* alongside, the flagship may hoist the guard-flag *under* the particular ship's distinguishing-pennant, or the distinguishing-pennant of the division to which the ship belongs; or at night may display a red light after the call, as above.

NOTE.—Squadron-flagships will not take guard-duty. Division-flagships will not take guard-duty unless the divisions to which they belong are reduced to two ships present, or the ships of the whole force present are reduced to five ships or less. With the above exception all ships will take guard-duty in turn, but the guard-flag will not be hoisted by the flagship or vessel of the senior officer present, while doing guard-duty.

(3) Boats on guard-duty shall display a small guard-flag from a staff in their bows during daylight. The staff shall be of such length that, when stepped, the foot of the flag shall be three feet above the rail of the boat.

(4) When a ship is *underway and in formation* the display of this flag denotes that she is the *guide* in the formation. When a tactical signal does not indicate which ship is to be the guide, the commander-in-chief, or officer directing the movement, will designate her by hoisting the guide-flag *under* the ship's distinguishing-pennant. The ship designated *answers this by hoisting the guide-flag*. The guide-flag hoisted *over* a ship's distinguishing-pennant indicates that she is to be no longer guide. This signal is *answered by the ship designated hauling down* the guide-flag.

At anchor, the guard-ship may be designated or changed in the same manner.

**126. Convoy and Position Pennant.**—(1) This pennant will be worn at the *fore* of all ships on *convoy-duty* to indicate to ships that may be fallen in with the nature of their service.

NOTE.—No vessel should hoist the convoy-pennant without proper authority, but when it is hoisted she should not be interfered with by any officer junior to the one by whom she was sent on such service, except when the public interests imperatively demand such action, of the necessity for which the senior officer present must be the responsible judge.

(2) In a ship, in formation, not on *convoy-duty*, this pennant, when hoisted, indicates that she has attained an assigned position; but is not to be used in tactical evolutions except as prescribed in the Tactical Signal-Book.

(3) In compound formations, it is worn by the leaders of rear divisions, or the ships responsible for maintaining the prescribed intervals.

(4) When a ship in formation has been in position and loses it, she shall hoist the position pennant half yard-arm high as an indication of the fact, and keep it so until she regains her position, when she shall run it all the way up and immediately haul it down.

(5) The position-pennant displayed with a distinguishing-pennant *over* it, by the senior officer, means to the ship signalled, "You are out of position," or "You are out of order."

**127. Danger- and designating-flag.**—This flag hoisted *alone* indicates *danger ahead*. A compass-signal *under* it indicates the bearing of the danger from the *ship making the signal*.

NOTE.—The use of this flag as a *designating-flag* is explained in the instructions for using the General Signal-Book, which follow.

**128. Dispatch and breakdown.**—(1) This flag-alphabet flag I, will be *worn* at the *main* in all dispatch-vessels, to indicate to ships that may be fallen in with the nature of their service.

NOTE.—(a) No vessel should hoist the dispatch-flag without proper authority, nor display it as such until actually underway and out of formation, but when it is hoisted she should not be interfered with by any officer

junior to the one by whom she was sent on such service, except when the public interests imperatively demand such action, of the necessity for which the senior officer present must be the responsible judge.

(b) A vessel in carrying despatches or orders through a fleet should hoist, below the dispatch-flag, the distinguishing-pennant of the ship to which she is next bound; or she may display in inverse order, the distinguishing-pennants of all the ships to be communicated with, that of the ship to be next communicated with being the last one in the hoist, and as soon as any ship has been communicated with, her distinguishing-pennant shall be detached from the hoist.

(2) In formation underway, this flag shall be kept *rounded up* "*in stops*" at the *foremast head* (except when a guide-flag is hoisted there) ready to break in case of *accident to machinery or steering-gear*. When a guide-flag is displayed at the foremast head, the breakdown-flag shall be hoisted "*in stops*," below the guide-flag, ready to break below it. In case of accident which is likely to necessitate slowing down or leaving the formation, it shall be instantly broken as an *emergency signal*, and implies "breakdown" or "not under control," and other ships must keep clear. It shall be kept flying, during daylight, until repairs are completed, and the ship is headed for the formation to resume her position, or until she is beyond signal distance.

(3) In case of "*man-overboard*," a ship shall sheer out of formation, break this flag, and at once lower it part way (but not below the level of the smokestacks) as a signal for "*man overboard*." (See Tactical Signal-Book.)

**129. General- and boat-recall-flag.**—(1) The general-recall-flag hoisted at the foremast head, or at any gaff or yard-arm, is a peremptory order for all boats absent from that ship or detached duty, or otherwise, to return with all speed to their ships. A numeral displayed below the general recall is an order that all boats except the one indicated shall return to the ship.

(2) The general-recall *under* a numeral will indicate the recall of the ship's boat having that numeral as a call-number. Commanding-officers of all ships shall assign numbers to all boats for this and for boat exercise purposes. A recall will be kept hoisted until the boat is made out as returning in obedience to the signal. If necessary, but only in cases of emergency, the ship's call-letter may be sounded on the steam-whistle, or a gun fired to attract the attention of the boat.

(3) When a boat recall is hoisted with the annulling-flag *over* it, it indicates that the boat so designated shall *not* return to the ship at the time previously prescribed, but shall wait for a further display of her recall.

At night, a boat may be recalled by the display of "N" followed by the number of the boat and the ship's call-letters for signature; or special night recalls may be assigned for particular occasions, observing due care that the recall used shall not be such as to render it possible to be mistaken by other ships as a signal to them.

**130. (1) The powder- and firing-flag.**—(Alphabet-flag B) shall be displayed at the *fore* on all vessels while taking on board or discharging explosives or loaded projectiles, and in the bows of all boats and lighters transporting the same.

NOTE.—It is also to be displayed by a ship engaged in target-practice with either guns or torpedoes, while firing is in actual progress. It shall be hauled down half way when off the firing line, if the practice is to continue, and hauled down at "Cease-firing" or "Secure." It may be also used at sea, in formation, when standardizing propellers, to indicate when the ship is on the course and observations are in progress.

**131. The squadron-movement flag** is hoisted in conjunction with and at the same time as certain tactical signals to show that the proposed movement is to be executed by squadrons as the unit.

**132. The divisional-movement pennant** is hoisted in conjunction with and at the same time as certain tactical signals, to show that the proposed movement is to be executed by divisions as the unit.

**133. The meal- and full-speed pennant.**—(1) The meal pennant is kept hoisted as a single display at the yard-arm during the period when the crew are at meals on board vessels *at anchor*, whether or not the colors are hoisted. This pennant will be shown for this purpose without reference to the flagship.

(2) At sea or underway, in formation, it shall be used as a reserve-speed pennant. (See Article 192.)

**134. The battle efficiency pennant** is to be worn at the *fore* on such vessels as may have been officially declared entitled to fly it for excellence in gunnery as determined by results of the last annual record practice.

**135. The church-pennant** is to be hoisted *over* the ensign during the performance of Divine Service on board vessels of the navy.

**136. The Red-Cross flag** is by international agreement, to be worn at the fore on all hospital vessels. It is also to be displayed over the field hospital of any naval force on shore.

**136a. The submarine distinguishing and warning flag** is hoisted on the tender or parent ship of submarines to indicate that submarines are operating submerged in that vicinity.

**137. The international-code pennant** is to be carried on board all vessels of the navy and used as prescribed in the International Code-Book on such occasions as it may be required to use this method of communication.

**138. Flags of the President, Secretary of the Navy, and the Assistant Secretary of the Navy.**—The use of these flags is prescribed in the U. S. Navy Regulations.

**139. (1) The union-jack** is a sign, in port, of dress, and is to be worn in good weather, hoisted on a staff shipped in the bows or on the head booms, *when colors are hoisted*. It is not to be worn while coaling ship.



(2) The jack hoisted at the fore is a signal for a pilot. A gun may be fired to call attention to it.

(3) The jack hoisted at the mizzen, or at a yard-arm, denotes that a general court-martial or a court of inquiry is in session. It is to be hoisted (and, *if in port*, a gun fired) when the court meets, and to be hauled down when the court adjourns.

(4) When diplomatic representatives of the United States of and above the rank of Charge d'Affaires, officially visit naval ships, the jack is to be worn in the bows of the boats in which they are embarked.

NOTE.—When the Naval Governor of Guam or Tutuila is embarked in a boat within the limits of his government, for the purpose of paying visits of ceremony in his official capacity as governor, a union-jack of suitable size shall be carried on a staff in the bow.

140. The consular-flag is worn in the bows of the boats in which consular representatives of the United States are embarked when making official visits to naval vessels.

141. Flags and pennants of officers, U. S. Navy.—The use of these personal flags and pennants is prescribed in the U. S. Navy Regulations.

142. Color's signal.—(1) When two or more ships are in company, the senior officer present will at 6.55 a. m. make the uniform- and time-signal, hauling down the signal at 7 a. m. as a time-signal for the purpose of comparing deck clocks. In case it is not necessary to make a uniform-signal, the preparatory-pennant will be used to indicate the time-signal, and the uniform will be understood to be the same as the preceding day.

(2) *In port*, when two or more ships are in company, the senior officer present will, at 7.45 a. m. hoist the preparatory-pennant over a numeral to indicate to the other ships present the number of the ensign to be hoisted at colors; thus, "Preparatory 4" will indicate that a "Number 4 Ensign and Jack" will be worn during the day. (Auxiliary vessels and torpedo and other small craft will display colors of size corresponding to those designated for large ships.) If the signal is hoisted after 8 a. m. colors, ships will answer, and, upon its being hauled down, will promptly shift colors to the size ordered.

(3) *In port*, the preparatory-pennant shall be hoisted at the yard-arm of the ship of the senior officer present, morning and evening, at the time the first call for colors is sounded, and it will be started from the point of hoist at the *first note* of the bugle or *first beat* of the drum, sounding the flourishes or ruffles, preceding "colors."

143. Battalion-flags for infantry and artillery are provided for naval landing-forces and also for naval militia or naval reserves according to circumstances.

**144. Distinguishing-flags, pennants and calls in general.**—Distinguishing flags or pennants, and calls or call-letters are provided for fleets, squadrons, divisions, and individual vessels of the U. S. Navy, based on a possible expansion in time of war to four hundred vessels, each group *for call-letter* purposes being known as a fleet. Each *fleet* has its *separate* distinguishing-pennant and call-letter, and each individual ship belonging to one of these fleets has a distinguishing-pennant and call-letter, there being twenty of such for each fleet, as shown in the table in the Signal-Books.

NOTE.—(a) The fleets which are composed of battleships, monitors, cruisers, and scouts are usually subdivided by the order of the Navy Department, into two squadrons of eight ships each, each squadron being composed of two divisions of four ships each. The regular distinguishing-flags, pennants, and calls for the first and second squadrons and the first, second, third, and fourth divisions corresponding to these *tactical* subdivisions, are the same for all fleets. There are, however, four spare call-letters and distinguishing-pennants for each fleet for ships that may be temporarily attached, or for ships in reserve or under repairs.

(b) Torpedo-craft are normally divided into flotillas of five vessels each, four flotillas comprising a flotilla fleet. Each flotilla has one of the four distinguishing-pennants and calls as shown for the above-mentioned fleets.

(c) The fleets of auxiliaries, tugs, etc., are not subdivided into squadrons and divisions, but they have assigned to them a fleet and a ship distinguishing-pennant and call-letter in the same manner as other vessels, mentioned above.

(d) The fleet distinguishing-pennants are shown in Plate VIII, and the individual ship's distinguishing-pennants in Plates IX to XI of the Tactical Signal-Book. It will be noted that the letters I N T Y and Z have been omitted.

(e) The commander-in-chief will assign a distinguishing-pennant and corresponding call-letter to each ship under his command. The letter F and pennant is always to be assigned to the flagship of the commander-in-chief, and will be used without any fleet-pennant or fleet call-letter designation.

### Directions for the Use of Distinguishing-Flags, Pennants and Calls, by Day.

**145. (1)** In calling a ship of the *first fleet*, only the ship's distinguishing-pennant and call shall be used.

(2) In calling a ship *not in the presence of a ship belonging to another fleet* only the ship's call-letter or pennant will be used. If there is a ship, or there are ships, present *not* belonging to the same fleet, the proper fleet flag or pennant will be displayed *under* the distinguishing-pennant or the proper fleet-letter will be used in conjunction with the call-letter of the ship called.

NOTE.—(a) If all ships present belong to the same division or to the same squadron, it will not be necessary for the division-commander or squadron-commander to use the distinguishing-signal (pennant, flag, or letter) of the subdivision; in the presence, however, of vessels belonging to other subdivisions of the fleet, such distinguishing-signal would have to be made, and if a division or squadron of another fleet were present it would be necessary, in addition, to make the proper fleet-distinguishing signal in addition to that of the subdivision.



(b) It will be noted that the fleet and ship call-letters have *corresponding* flags or pennants. It is *forbidden* to use the *alphabet-flags* corresponding to these letters for distinguishing or call-flags.

### Directions for the Use of Night-Calls.

146. (1) The general or whole-force call is, in all night systems, the cornet.

(2) To call a squadron or division: Make the fleet call-letter and the division- or squadron-call, repeating each in succession, until answered, but if all the ships present belong to the same fleet, the squadron- or division-call will alone be used.

(3) To call a ship: A ship will be called by making the proper fleet call-letter followed by the ship's call-letter repeating each in succession until answered by the ship turning on or making her call-letter, but if all the ships present belong to the same fleet, the fleet call-letter will be omitted.

(4) To call two or more ships: Call one ship until answered, then call the others, one at a time until all have answered.

### Directions for the Use of Sound-Signals.

147. The general or whole-force call is shown on Plate V as well as the squadron- and division-calls. To call the whole force, a squadron, a division, a ship or two or more ships proceed as above for night-calls using the sound-calls as shown. If necessary to use a fleet-call in conjunction with any of the above, use the sound-call corresponding to the letter assigned for the given fleet-call.

### To Exchange "Vessels Numbers."

148.

NOTE.—(a) Vessels of the Navy, meeting at sea, shall display their international signal-letters as soon as within signal distance, unless they presumably belong to the same fleet in which case each will use its individual-pennant or call-letter. As soon as one vessel reads the other's signal she shall "answer." In case of flag-signals the ship which answers will not haul down her signal until answered by the other ship.

(b) At night, as a preliminary, vessels will make the general-call, and when answered will make their international signal-letters.

(c) In case two or more vessels are in company, the senior alone is to signal her letters and answer those of the communicating vessel.

(d) A vessel coming into port will be the first to make her letters to the ship in the harbor.

(e) In case the ship is so situated that she can see the signal of the incoming ship before the senior officer present, she shall repeat the signal of the arriving ship. When this is answered by the senior officer she will repeat the letters of the senior officer's ship to the one coming in.

### To Use the Navy List.

149. (1) In the Navy Register, published by the Navy Department, signal-letters will be permanently assigned to every officer of the navy on the active list to be retained by him throughout his career in the service. These letters will consist of a group of four beginning with the letters E or F.

(2) A signal which accompanies an officer's signal-letters will indicate the purpose of designating that officer.

### How to Make Numeral Signals.

150. Numeral-signals, by any method of signalling, are concrete numbers, and derive their *signification* from an alphabetical signal which ACCOMPANIES them.

NOTE.—(a) With flag-signals, the use of ten separate numeral-flags, and three repeaters gives the display of one or more of these flags a numeral signification without other indication; by other method of signalling than flag-hoists, the numeral signification is imparted to the characters by the "Numerals," which signifies "Numerals follow" or "Numerals end," as explained in the instructions for the use of the Wig-Wag and other methods of signalling.

(b) The use of the answering-pennant as a divisional-point to represent the divisions of mixed quantities, and also as the decimal-point, has been explained.

(c) The capacity of the numeral flag-code, as limited to four flag-hoists does not extend beyond the number 9999.

(d) To make a numeral signal beyond the capacity of the numeral flag-code. To signal any number up to nine million, nine hundred, and ninety-nine thousand, special signals are employed. For example, "VF" means "The numeral-signal which follows represents thousands. A second numeral-signal following represents hundreds." Thus: VF-71 would mean 71,000, or VF-71-454 would mean 71,454. In answer to a signal, "How many rounds of small-arm ammunition are ready for issue," the signals VF-1500-750 would mean 1,500,750 rounds.

### Time-Signals.

151. The *time of day* will be signalled by the use of the table beginning with LV (see page 139) which gives a separate signal for each hour. The *minutes* will be indicated by a numeral *below* the signal.

NOTE.—To signal *seconds of time*, display the numeral indicating the seconds in a separate hoist, but in this case there should be two flags to indicate minutes and two to indicate seconds; thus, to make "1 hour, 00 minutes, 03 seconds, a. m.," the signal would be "LV-00" on one hoist, indicating 1 hour, 00 minutes, and "03" indicating the seconds, on the other, or, to make "6 hours, 04 minutes, 10 seconds, p. m.," the signal would be "MO-04" and "10."

### Date-Signals.

152. Dates will be signalled in accordance with the table (see page 139) beginning with "MV" for the months, and indicating by a numeral below, the day of the month; thus, June 3 would be "OA-3," or, December 25 would be "OG-25." The year 1905 would be OH and the number 1905 hoisted at the same time.

### Compass-Signals.

153. (1) A table beginning BAC (see Signal-Books) is given indicating compass courses or bearings by degrees from zero at north, through east (90), south (180), west (270) to north; in a separate column of the same table, the equivalent of each com-

pass direction as just described is given in the notation from north and south to east and west.

(2) *Another table* beginning BQC indicates the signals required for compass courses and bearings by *quarter points*.

(3) The table of compass signals is used to indicate a compass course or bearing referred to in an accompanying signal.

NOTE.—Further use of the table of compass signals. In reporting *variation of the compass*, the signal ZL will be hoisted (the variation of the compass in degrees is indicated by compass signal following and the minutes as indicated by numeral below). For example: To report a variation of  $10^{\circ} 30'$  E, the signal would be made ZL and BAM 30; or  $0^{\circ} 30'$  E, would be BAC 30; or  $0^{\circ} 30'$  W, would be BPZ 30, that is  $359^{\circ} 30'$ , which is the same as  $0^{\circ} 30'$  W; or a signal for  $10^{\circ} 30'$  W, would be  $349^{\circ} 30'$ , or BPO 30.

154. **Soundings** will be reported by signal in feet. The negative flag above a numeral-signal on the subject will indicate "No bottom" obtained at the depth signalled.

### HOW TO USE THE GENERAL SIGNAL-BOOK.

155. (1) All signals made by hoists of alphabet-flags are general-signals.

(2) All signals made by *any other method* than flag-hoists should also be regarded as general-signals, unless preceded by the "letters call" or "numerals follow"; as a special precaution, however, in order that there shall be no uncertainty as to when the signal refers to the General Signal-Book, a special call "General Signals Use" is provided; if preceded by the "*letters call*," the signal is a spelled-out message; if by the "*numerals follow*," it is a concrete number, the signification of which depends on the accompanying signal; if by "*General-Signals Use*," the signal is sought in the General Signal-Book.

### To Send a Message.

156. Search in the General Signal-Book, in alphabetical order, for one of the principal words of the signal which it is desired to send. The signal-letters will either be found in the left-hand column abreast that word or if the signal has been assigned letters under some other word, the signal-letters will be found in the right-hand column under "Reference."

NOTE.—(a) Any general signal can be put in its negative form by hoisting the *negative*-pennant over the signal; or an additional meaning can be given to the signal by hoisting the *affirmative* over it to show that a directed duty has been performed, or that a specific work has been completed whether or not it has been the subject of previous signal or signals. The *interrogatory* hoisted over a signal changes it to the interrogatory form.

For instance the signal "Anchor at the mouth of the river," with the negative over it would mean "Do not anchor at the mouth of the river" or "I cannot anchor at the mouth of the river," according as the signal conveys an order or imparts a fact.

With the affirmative over it, the signal would mean "I have anchored at the mouth of the river." With the interrogatory-pennant over the signal

it would mean "May I anchor at the mouth of the river?" The significance will always be apparent in practice.

(b) In signals designating a particular ship, place, person, or thing, the designating-flag (danger-flag) will be hoisted over, or at the same time, and if possible, on the same mast, as the signal. For a ship, the designating-flag will be hoisted over the distinguishing-pennant or the "vessels number" of the ship designated; for an officer, over that officer's signal-letters as given in the Navy Register or in the Navy List; for an enlisted man or other person, at the same time as the signals spelling out his name; for a place, over the signal in the geographical-list; or for a thing, over the word in the spelling vocabulary of the General Signal-Book, the "Telegraphic-Dictionary."

### Table of Units.

157.

NOTE.—All commodities, distances, weights, measures, etc., are expressed in terms in accordance with the following table:

Boards, planking, spars, oars, etc.....	in running feet.
Fresh meat, vegetables, bread, dry or canned commodities (except beans), and small stuff.....	in pounds.
Cordage .....	in fathoms.
Coal .....	in tons (long).
Water, oil, liquids, and beans.....	in gallons.
Salt beef, pork, etc.....	in barrels.
Ammunition .....	in rounds.
Distances at sea .....	in sea miles or yards.
Distances on land.....	in statute miles or yards.
Depths .....	in feet.

### To Read a General-Signal.

158. Look in the left-hand column of the General Signal-Book for the group of letters in *alphabetical order* and abreast it will be found the message intended to be conveyed. If understood, "answer" (acknowledge). If not understood make "Interrogatory" or "Repeat." With flag-hoists the answering-pennant is used to denote "understand," and the interrogatory to indicate "not understood."

### Rules for Flag-Signalling.

159. When the various tactical units of one or more fleets are in company the following rules governing the sending and receiving of flag-signals shall be observed:

RULE I.—In general, with the one exception of an emergency flag-signal (such as breakdown, man-overboard, etc.), which by its nature is a general-signal, all flag-signals made by any ship are intended for and are replied to by the commander of the division to which the signalling-ship belongs. On the receipt of a signal, the division-commander either acts upon it, or repeats it to the commander-in-chief, as the case may require.

RULE II.—If signals are flying on any flagship at the time routine reports are required to be sent in, such routine signals shall not be hoisted by vessels of *that division* (or if a squadron-commander, of that squadron) until the signals on the flagship in question are hauled down.

RULE III.—Hourly coaling-reports, sick- and absentee-reports, and noon coal-reports will be received by the division-commanders and will be reported to superior authority only when directed to do so.

RULE IV.—Latitude and longitude reports of the ships of any division will be received, averaged, and the mean position reported as soon as possible by the division-commanders direct to the commander-in-chief.

RULE V.—In port or at sea all tactical-signals made by the commander-in-chief will be answered by each ship hoisting the same signal, but in addition, the division-commanders will hoist the *answering-pennant* when all ships of their divisions have hoisted (repeated) the signal; and the squadron-commander will hoist the *answering-pennant* when all the ships of his squadron have done the same. In signals *other than tactical*, the division- and squadron-commanders will not answer until the vessels of their respective commands have all answered.

NOTE.—By tactical signals are meant any signal found in the *Tactical Signal-Book*.

RULE VI.—Nothing in the above rules will be construed as applying to wig-wag or semaphore signals which may always be sent direct to the commander-in-chief, if they are of such nature as to require his action.

RULE VII.—*All* general-signals, including the tactical ones as per Rule V, are *repeated* at once by the squadron- and division-commanders, but their answering-pennants will not be displayed until all the vessels of their respective commands have answered the signals.

RULE VIII.—Under special circumstances, a commander-in-chief may designate a certain ship to repeat signals, in which case the ship thus designated will repeat them as they were originally made. In all other cases, when a ship repeats a signal, she shall exhibit the *first repeater* above the signal, to show that it is a repetition, and if it is intended for a particular ship, the repeating ship shall exhibit the distinguishing-pennant of the ship for which the message is intended over the first repeater, or shall hoist at the same time the said ship's "letters."

RULE IX.—In repeating signals from an individual ship to a flagship of a squadron-commander, or commander-in-chief, a division-commander will hoist first repeater, then the distinguishing-pennant of the vessel signalling, then the signal. Thus: Should the *Iowa*, call-letter "R," in the fourth division, hoist a signal upon which only the commander-in-chief could act, it would be answered by the *Ohio*, flagship of the fourth division, which would then hoist "first repeater, R, signal" which would be answered by the *Connecticut*, flagship of the commander-in-chief.

RULE X.—A reply to a signal which is repeated, is addressed to the division- or squadron-commander who repeated it.



NOTE.—For example: Taking the case as above in Rule IX, supposing the reply of the commander-in-chief to the signal in the affirmative, the signal made would be “R Affirmative,” which the *Connecticut* would hoist. This would be intended for the *Ohio*, but having the *Iowa*’s pennant above it, the *Ohio* would, instead of answering it, repeat it, “R Affirmative” without repeater. This would be at the same time an acknowledgment to the commander-in-chief and a call to the *Iowa*. The *Connecticut* would then haul down, but the *Ohio* would keep the signal flying until the *Iowa* repeated it, “R Affirmative” without the repeater, when the *Ohio* would haul down. *Ohio* would keep signal flying until *Iowa* acknowledged it. In this way the squadron- or division-commanders never use the repeater when repeating signals from a senior to a ship under their immediate commands.

RULE XI.—It will sometimes happen, on detached service or otherwise, that one vessel may wish to communicate with another not within signal distance, by means of an intermediate vessel available, through position, for transmitting messages by signal. In such cases the *third repeater* hoisted *below* a distinguishing-pennant is a request to the ship designated to repeat the signal, which will be hoisted at the same time, and will appear with the distinguishing-pennant of the ship addressed. The repeating ship then repeats the signal according to the rules above, and repeats back the acknowledgment or the reply to the ship originating the signal.

### General Instructions for Signalling.

160. The following methods of signalling may be employed in the United States Navy:

(1) **By Day.**—Day-signals are transmitted by flag-signals (U. S. Navy Code); International-Code flag-signals; Wig-Wag; Two-arm semaphore (*hand and machine*).

(2) **By Night.**—Night-signals are transmitted by hand-torch or portable; Swinging hand-lantern; Beam of searchlight; Flashing or occulting lights of any kind showing a white ray; Electric system of incandescent lamps in a vertical hoist showing either red or white lights, singly, or in combination to the number of four lamps; A red and a white lantern worked with a key; The Very’s system of projecting green and white stars into the air; The illuminated two-arm semaphore.

(3) **By day or night using sounds.**—Hand telegraph key, including the wireless system; bugle, fog-horn, or steam whistle, on the “flash” system; Bell on the “dot” system.

(4) **Exceptions.**—

NOTE.—(a) Of the above methods of signalling the following are the exceptions to the general rule that all are used to transmit the U. S. Navy Code.

(b) *The International-Code Flag-Signals:* The International-Code is used for communicating with all other than vessels of the United States Navy. The instructions for its use are found in the International-Code Book.

(c) *The Wireless System:* By international agreement the Continental Morse Code is officially used.



(d) *The U. S. Army and Navy Wig-Wag Code*: By joint agreement between the U. S. Army and the U. S. Navy, certain variations in the U. S. Navy Code are used in communicating, but these variations are minor in character and are fully set forth in the description of the Wig-Wag system of signalling.

### General Hints on Flag-Signalling.

161. (1) Skill in flag-signalling lies chiefly in the accuracy and rapidity with which flags are bent on, hoisted and hauled down. The question of knowing the meaning of any combination of flags hoisted by another naval vessel, or of being able to send any desired signal in accordance with the prescribed rules, is so simple that excellence is exhibited by the care and rapidity with which the mechanical operations of bending on, hoisting, etc., are carried out.

(2) Never answer a signal until its meaning has been understood. It is a reflection on the signalmen of a ship, and hence on the ship herself, to acknowledge a signal and then be forced to hoist the interrogatory, because, on reference to the signal-book, it is found to be unintelligible. Sometimes a mistake is made in sending, sometimes in receiving; hence until the meaning is looked up in the signal-code, a signal can mean nothing to the receiving ship, and should not be answered.

(3) Therefore, in flag-signalling *celerity* in bending on flags, hoisting and hauling down, and in obtaining the meaning of a signal from the signal-book, is secondary only to absolute accuracy in the several simple operations involved in sending a signal.

(4) Never hoist a signal until every preliminary preparation has been made, flags bent on and checked, signal-halliards led out through a snatch-block (if possible), and a man tending the signal to see that it goes up clear—then hoist it on a run.

(5) Check the signal again as it leaves the deck.

(6) The moment the answering-pennant is broken, haul the signal down with a run.

(7) Hand-over-hand hoisting is slow, and hence, if possible, signal-halliards should be rove through a snatch-block, or even around a brass rail, and run away with, both in hoisting and in hauling down.

### The U. S. Navy Code.

162. (1) The U. S. Navy Code of thirty characters is shown in the preceding pages. It consists *primarily* of the code shown in Column 2 (Plate VI) with the *secondary* meanings shown in Column 7. The *Very's system* of night-signals, Column 6, is used only to transmit the secondary meaning of the code. The primary meanings of the alphabetical portion of the two-arm semaphore, Column 5, are the same as the British Code, but the

secondary meanings are those of the U. S. Navy Code. Columns 3, 4, and 6 correspond with the primary significations of Column 2; thus, in Column 3, one dot is a 1, and two dots a 2; in Column 4, a red light is a 1, and a white light a 2; in Column 6, a red star is a 1, and a green star is a 2.



















(2) In transmitting the U. S. Navy Code by *flag-signals* certain exceptions or variations are made to secure fewer flags in the hoist. Thus a separate numeral code of flags is used, thereby avoiding the necessity for displaying the numeral-signification (which would otherwise be the X-flag) over a numeral-hoist.

(3) It will be noted that throughout the General Signal-Book (and hence in the Tactical Signal-Book and the Boat-Book) there are no signals which begin with Q, K, P, W, or X, and therefore that when any signal is hoisted or made by any other method which begins with any one of the above letters the *secondary meanings* attach to these letters, respectively Q = Interrogatory; K = Negative; P = Affirmative; N = Annulling; or X = Numerals. These letters, except X, occur in the second, third, or fourth place in their alphabetical meanings.

























Therefore, *when the letters Q, K, P, W, and X occur as first letter in any general-signal they are used in their secondary meaning. As no signal can be found in the signal-books beginning with these letters, no mistake in meaning can arise.*

NOTE.—The following tables exhibit in parallel columns the wig-wag, sound, flash, and Ardois systems based on the dot and dash (Continental) code, and the hand-flag and semaphore-machine systems using the semaphore code. The letters Q to Z, inclusive, have secondary meanings as numerals in the flag, Ardois, and Very systems only.

























## PLATE VI.

Column 1	Column 2	Column 3	Column 4.		Column 5
CHARAC- TERS	WIG-WAG, SOUND AND FLASH SYSTEMS	ARDOIS SYSTEM	TWO-ARM SEMAPHORE		SECONDARY MEANINGS
			MA- CHINE	HAND FLAGS	
A	. —	 R W			Error
B	— . . .	 W R R R			
C	— . — .	 W R W R			Repeat
D	— . .	 W R R			
E	.	 R			
F	. . — .	 R R W R			

## PLATE VI (Continued).

























Column 1	Column 2	Column 3	Column 4		Column 5
G	— — .	 W W R			
H	. . . .	 R R R R			Execute
I	. .	 R R			
J	. — — —	 R W W W			
K	— . —	 W R W			Negative
L	. — . .	 R W R R			Preparatory
M	— —	 W W			
N	— .	 W R			Annulling

## PLATE VI (Continued).

Column 1	Column 2	Column 3	Column 4	Column 5
O	---	 W W W	 	Interrogatory
P	.-.-.	 R W W R	 	Affirmative
Q	--.-	 W W R W	 	Numeral 1*
R	..--	 R W R	 	Numeral 2*
S	...	 R R R	 	Numeral 3*
T	-	 W	 	Numeral 4*
U	..--	 R R W	 	Numeral 5*
V	...--	 R R R W	 	Numeral 6*

\* In Flag, Ardois and Very Systems.

## PLATE VI (Continued).

Column 1	Column 2	Column 3	Column 4	Column 5	
W	• — —	 R W W W			Numeral 7*
X	— • —	 W R R W			Numeral 8*
Y	— • — —	 W R W W			Numeral 9*
Z	— — • •	 W W R R			Numeral 0*
Cornet	— — — —	 W W W W			
Letters (follow)	— — — •	 W W W R			
Signals (follow)	• • — —	 R R W W			
Interval	• — • —	 R W R W			Designator

\* In Flag, Ardois and Very Systems.



WASHINGTON, D. C., December 30, 1912.

1. In compliance with requirements of General Order No. 244, which adopts the International Morse Code for use in the Naval Service, in place of the Myer Code, the Bureau publishes below the alphabet and numerals of the International Morse Code; also certain additional symbols and secondary meanings adopted for use in the Navy with that code. The adaptation of this code to the various systems of signalling is explained, and there are added certain modifications of the two-arm semaphore system.

PHILIP ANDREWS,  
*Chief of Bureau.*

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### The Alphabet.

A . —	H . . . .	O — — —	V . . . —
B — . . .	I . .	P . — — .	W . — —
C — . — . .	J . — — — —	Q — — . —	X — . . . —
D — . .	K — . —	R . — .	Y — . — —
E .	L . — . .	S . . .	Z — — . .
F . . — .	M — —	T —	
G — — .	N — .	U . . —	

### Numerals.

1 . — — — —	5 . . . . .	8 — — — . .
2 . . — — —	6 — . . . .	9 — — — — .
3 . . . — —	7 — — . . .	0 — — — — —
4 . . . . —		

### Additional Symbols and Secondary Meanings.

Cornet — — — —	Interrogatory (O) — — —
Letters (follow) — — — .	Affirmative (P) . — — .
Signals (follow) . . — —	Negative (K) — . —
Interval or designator . — . —	Annuling (N) — .

2. The following naval signalling systems are based on adaptations of this code: Signals by all these systems, *except the Very System*, are spelled-out messages unless preceded by "Signals," in which case they are to be sought in the General or Battle Signal Book, or Boat-Book. A return to spelling is indicated by "Letters."

(a) **Wig-wag System.** This system is directly applicable to signalling with hand flag, hand torch or electric portable, swinging hand lantern, and beam of searchlight.

The code is International Morse, designated the "dot and dash" code, as given above, with the following additional Conventional Signs:

### Conventional Signs.

End of word: Front.

End of sentence: Front, Front.

End of message: Front, Front, Front.

Error: AA Front.

Acknowledgment: MM Front.

Cease signalling: MMM Front.

Repeat after (word): CC Front, A Front (word).

Repeat last word: CC Front, Front.

Repeat last message: CCC Front, Front, Front.

Move a little to the right: RR Front.

Move a little to the left: LL Front.

Move a little uphill: UU Front.

Move a little downhill: DD Front.

Signal faster: FF Front.

Wait a moment: . — . . . Front.

Signature follows: Sig. Front.

In the wig-wag system there is one position and three motions. "Position" is with the flag or other signal appliance held vertically, the signalman facing squarely toward the station with which it is desired to communicate.

In the first motion the flag is waved to the right of the sender, and will embrace an arc of  $90^{\circ}$  starting from the vertical and returning to it, and will be made in a plane at right angles to the line connecting the two stations. The second motion is a similar motion to the left of the sender. To make the third motion, the flag is waved to the ground directly in front of the sender and instantly returned to "position."

The first motion represents a dot ( $\cdot$ ), the second a dash ( $-$ ), and the third "Front."

(b) **Flashing or Occulting Light System.** This system is based on the International Morse Code as given on page 110, and includes the Conventional Signs of the wig-wag system. A short flash represents a dot, a longer flash a dash, and a long steady display, the "Front" of the wig-wag system.

(c) **Sound System.** This system, like the preceding, is based on the International Morse Code, and includes the Conventional Signs of the wig-wag system, except those for "Move a little to the right," etc. "Acknowledgment" is "MM Front," *followed by ship's call.*

In this system a toot or very short blast represents a dot, a longer blast a dash, and a much longer blast "Front."

In using a bell or similar appliance, one stroke represents a dot, two strokes a dash, and three strokes "Front."

(d) **The Ardois System.** This system is based on the International Morse Code as given on page 110, except that all

numerals are spelled out. A red light represents a dot and a white light a dash.

The following have a secondary meaning when the upper light is pulsated:

A (RW)	Error.	N (WR)	Annuling.
C (WRWR)	Repeat.	O (WWW)	Interrogatory.
H (RRRR)	Execute.	P (RWWR)	Affirmative.
K (WRW)	Negative.	Interval (RWRW)	Designator.

The following Conventional Signs are used:

End of word: RWRW.

End of sentence: RWRW, RWRW.

End of message: RWRW, RWRW, RWRW.

Acknowledgment (a) In flag code signals repeat each display.

(b) In spelled-out messages make RWRW at end of message to indicate it is understood.

(f) **Radio Signals.** For transmitting signals of the Navy Flag Code by radio the International Morse Code as given before is used, the single exception being the General Call.

The following Conventional Signals are used:

Prefix for all calls except General Call: . . . . —

Cornet (General Call): The word CORNET.

Execute (haul down): The word EXECUTE.

“Interval” is not needed between words, but is used to separate continuous complete signals. Its use as “designator” will be clear from the context.

"Error" and "Repeat" are spelled out.

Punctuation marks and Conventional Signals or abbreviations other than the above are not used in *Radio Signals*, as distinguished from ordinary spelled-out radio messages.

## THE TWO-ARM SEMAPHORE METHOD.

(See Column 4, Plate VI.)

172. (1) Signals may be transmitted by the two-arm semaphore using either hand-flags or machine, all positions and motions, with the exception of "Interval" being the same by both methods.

NOTE.—(a) With the machine, a third arm or indicator (see Col. 4, Plate VI) is displayed on the right and below when in use (the left as viewed by the receiver). Without this device, it would be impossible to know which was the sender's right and which his left, as the machine may be used to send messages in diametrically opposite directions.

(b) The machine is mounted on the ends of bridge or at some other available point so situated that it may be seen through the greatest arc of the horizon. By means of electric lights installed on its vanes, the machine is made available for night- as well as for day-signalling; the lights should not be stronger than 16-candle-power, and frosted bulbs are preferable to clear.

(c) Vanes of semaphore machine are now painted yellow.

(d) Alphabet flags P or O are used depending upon the background.

## INSTRUCTIONS.

173. (1) Signalling by the two-arm semaphore is the most rapid method of sending spelled-out messages. It is, however, very liable to error if the motions are slurred over or run together in an attempt to make speed. Both arms should move rapidly and



simultaneously, but there should be a perceptible pause at the end of each letter before making the movements for the next letter.

(2) **With hand-flags** the interval, "end of word" or "3" is as shown in plates. Two successive motions are end of sentence, and three end of message.

(3) **With the machine**, the interval, "end of word" or "3" is the machine closed, but with the indicator showing. End of sentence is the "chop-chop" signal, both arms being placed at the right horizontal, and then moved up and down in a cutting motion, the indicator being displayed. The end of message is indicated by the closing of both arms and indicator.

### **To Send a Signal by Hand-flags or Machine.**

**174.** (1) Face the station or ship squarely and make its call-letter. If there is no immediate answer, wave the flags over the head, or wave the arms towards the vertical to attract attention, making the call-letter at frequent intervals.

(2) When the station called answers, it does so by making its own call-letter. With the machine, this call-letter is left with the display fixed until the message has been received and understood, which is signified by closing the machine. When the sender makes "end of message" by hand-flags, the receiver, if message is understood, extends the arms horizontally, and waves the flags until the sender does the same, when both leave their stations.

(3) If, during a message, the receiving ship is for any reason unable to see the sender (flags or machine), the interrogatory will be hoisted to indicate the fact.

(4) A semaphore message for the whole force is indicated by the display of the cornet half yard-arm high. A squadron, division, or ship may be called in the same manner by the display of the proper distinguishing-flag or pennant.

(5) In every case a second signalman or other person will record the signal as called out by the receiver.

(6) The second repeater, under a distinguishing-pennant is a request to the ship indicated to repeat the message to the ship whose distinguishing-pennant is shown below the repeater.

## GENERAL RULES FOR SENDING OR RECEIVING SIGNALS BY DAY OTHER THAN FLAG-SIGNALS.

175. The following general rules apply to the transmission of the U. S. Navy Code *by-day* by wig-wag or semaphore, either in sending or receiving *general-signals* or *spelled-out messages*.

(1) To call a particular station, ship, division, squadron, or fleet: Signal its initial or call-letter or letters until acknowledged. If the particular ship or station does not see the "call" its *attention* may be called by hoisting at the yard-arm its particular distinguishing-pennant. The acknowledgment consists in answering with the same call-letter or letters; and, in the case of the two-arm semaphore machines, the call-letter remains displayed.

(2) A signal must be preceded by either the "Letters Call" or numerals follow or general-signals use.

(3) To answer or acknowledge the receipt and understanding of a signal sent as above: (a) By the wig-wag system, signal "22.22.3," which means "I understand." (b) By the semaphore hand-flags make "R" and wave the flags. (c) By the semaphore machine turn off the call-letter and close the machine.

(4) If, in the course of a signal, the sender discovers that he has made an error, he should make the characters corresponding to "E.E. interval," after which he proceeds with the signal, beginning with the word or group in which the error occurred.

(5) If, in the course of a signal addressed to a single ship, the receiver does not understand a word, character, or display, he should "break in" with the characters corresponding to "C.C. interval," which means "repeat last word, or to have a whole message repeated, he should make the displays corresponding to "C.C.C. interval," which signifies "repeat last message."

In case of a message addressed to several ships (Rule 9), an individual ship failing to understand a word will not break in, but will continue to read as much of the message as possible, and after the whole message has been sent, request will be made to the next ship, or to the division-commander, or to the commander-in-chief to repeat the missing portion.

(6) In the U. S. Navy Code the secondary meaning of K is Negative; of P, Affirmative; of Q, Interrogatory; of W, Annuling, and of X, Numerals. In any *general-signal* beginning with these letters this *secondary meaning* is to be understood. No signals will be found in the signal-books beginning with these letters. In using any of these characters as a *single display* (except X, which is never so used) they acquire a secondary meaning by being followed by "End of message."

(7) **Numbers or numerals** which occur in the body of a spelled-out message may be spelled out in full, or, if preceded by "X.X. interval" and followed by "X.X. interval," they may be incorporated in the body of a message, as in the wig-wag system.

(8) **The "Designator"** (2212) is used to designate a particular place, person or thing referred to in a general-signal. Thus, it might be used before the "signal-letters" of a ship; the call-letter or letters of a ship, division, squadron or fleet; the "signal-letters" of an officer, and the name of a place as indicated by its signal in the geographical-list, etc. As the semaphore has no designator it will be necessary to spell out the word "Designator."

(9) **By day**, a flagship may indicate that a wig-wag or semaphore spelled-out message is intended for a particular ship, division, squadron, or fleet, or to the whole force, by hoisting half-way at the yard-arm the particular ship's, division's, squadron's, or fleet's distinguishing-flag or pennant, or, in case of the whole force, the cornet. This is answered by the ships called by each ship hoisting the answering-pennant half-way; but as in all other cases the answer should not be displayed until the receivers are ready with pencil and paper for recording the signal. When all ships called have answering-pennants displayed half-way, the message is proceeded with.

(10) **At the end of a message** sent as prescribed in Rule 9, the flagship hoists the distinguishing-flag or pennant, or the cornet, as the case may be, close up to the yard-arm, whereupon, if the message is understood, the receiving ship or ships run the answering-pennant close up to the yard-arm. The hauling down of the distinguishing-flag or pennant or cornet by the flagship is the acknowledgement of the answers, and the receiving ship or ships then haul down their answering-pennants.

(11) Any ship, division, squadron, or fleet may be *exempt* from any call by displaying its distinguishing-flag or pennant under that of the larger force called.

(12) Should a general-signal or a cipher message be received, great care must be taken to receive and record every letter exactly as it is sent as each individual letter is important.

(13) **In all signalling**, skill and rapidity must always be regarded as entirely secondary to accuracy, though after accuracy

has been obtained the *relative* skill of signalmen is shown by the rapidity with which they can accurately receive messages.

## THE ELECTRIC NIGHT-SYSTEM.

(See Columns 4 and 7, Plate VI.)

**176. The U. S. Navy Code** is transmitted by the ELECTRIC NIGHT-SYSTEM:

(1) By the FOUR-LAMP SYSTEM of incandescent-lamps in a vertical-hoist, showing either red or white lights singly or in combination to the number of four lamps, by which any character is made in a single display.

(2) By the TWO-LAMP SYSTEM of one red and one white light, worked by a key, to display the same characters by successive displays similar to the wig-wag or flash methods.

NOTE.—By either method a red light stands for a “one” or “1,” and a white light for “two” or “2.” In the two-lamp method, “interval” or “3” is indicated by the simultaneous display of both lights. All of the thirty characters of the U. S. Navy Code are used, including the secondary meanings. The upper light is pulsed only for certain squadron and divisional calls, as hereafter explained.

### General Instructions for the Four-Lamp System.

**177. (1) The key-board** is marked with both the primary and secondary meanings of the U. S. Navy Code to facilitate sending and receiving.

(2) Each display of a *tactical* signal will be repeated by the ship receiving the signal, and this repeating takes the place of any other acknowledgment; the final “interval” will be kept displayed until turned off by the flagship.

(3) In using the letters call, only the “repeating ships” will repeat the signal, but all will turn on the “interval” at the end of the message to indicate that it is understood. If the whole or any part is not understood, the interrogatory may be displayed according to the rules for conventional signalling under the wig-wag code.

(4) When many ships are in company it is not advisable for the flagship to stop a signal to repeat to an individual ship unless the signal is a tactical one involving an immediate movement of the ships of the formation. Except in this case, the squadron- or division-commander will repeat the signal to the ship failing to receive it, after the flagship has finished her message, but if the signal *requires immediate action*, the flagship will repeat at once as requested.

(5) If, because of a message being very important or for any other reason, the flagship should wish the display repeated in cases where this would not be done under these instructions, the word “Repeat” must be signalled immediately after the call,

after which each display as it is made should be repeated by the receiving ship or ships.

(6) **All-night drill signals, and signals which require a change of formation, course, speed, or order** shall be considered *preparatory*, and shall not be executed until the turning off of the signal of execution which is the display of the cornet (RRRR).

(7) All other signals are intended for immediate execution, unless the message itself states, or distinctly implies otherwise.

(8) **The cornet (RRRR)** displayed initially, that is, as preliminary to signalling is a general call for all ships within signal distance.

(9) **"Call" lights** are given in the plates, in the Tactical Signal-Book, corresponding to the distinguishing-flags and pennants for fleets, squadrons, divisions, and ships.

NOTE.—It will be observed that these calls are in every instance *flashed*, that is, the whole display repeated two or more times before displaying another combination. While the steady display of the cornet (RRRR) calls the whole force, this same combination "flashed" calls for the first squadron of a fleet.

(10) **The squadron- and division-movement signals** and these *alone* are displayed with the *upper light pulsated*.

(11) **Ships will acknowledge a call** by turning on the same display, and flashing it in the same manner as the call.

NOTE.—(a) In pulsating the upper light, and in flashing an entire display, the lights must be left turned off and turned on for a sensible length of time—the former to let the glow die out and leave the interval of darkness appreciable, and the latter to give time for it to be easily read. Unnecessary use of the make-and-break key is also to be avoided, as tending to injure it.

(b) The introduction of the shunt-lamps keeps the signal-lamp filaments warm and lessens the time necessary to bring the illumination to its full brightness, but it does not shorten the time between full brightness and darkness, and, therefore, care must be taken to give a sufficient interval in pressing the keys to permit the variations in illuminations to gain their full limit.

(12) *It is particularly important that tactical-signals* shall be made slowly and in as perfect a manner as is possible, and every attempt at undue speed should be discouraged.

(13) *The Electric Night-System is never to be used for any other than official messages.*

### Rules for Electric Night-Signals.

178. (1) **RULE I.**—All lights, except speed indicators, which might cause confusion or interfere in any way with the signal lights, must be extinguished or screened while signalling.

(2) **RULE II.**—A ship desiring to exchange signals will display the cornet (RRRR) or the call light-s of the fleet squadron-s, division-s, or ship-s with which it is desired to communicate, which will be answered by a similar display from the fleet squadron or division called, or from each ship successively called.



NOTE.—If more than one ship is called, the call-letters are separated by displaying the interval (WWRW). Each call will be answered (repeated) only by the ship called.

(3) RULE III.—The calls having been answered, display the appropriate call, "Letters," "General Signals Use," or "Numerals," and when answered proceed with the message.

NOTE.—Example: The commander-in-chief desires to execute the movement column right, four points. The signals made would be as follows: Flagship, General Call (RRRR), answered by same display on all ships; flagship, General Signals use (WRRR), U (RRW), Numerals follow (WRWW), 4 (WWRW), three intervals. Or, ships left, course WSW  $\frac{1}{2}$  W, magnetic, the flagship's signals would be Cornet, General Signals use, L, interval, BUJ, three intervals.

(4) RULE IV.—The "interval" (WWRW) takes the place of the "3" in the wig-wag code. Displayed once it means "end of word"; displayed twice "end of a sentence"; displayed three times "end of message" or "final."

NOTE.—If a message bears a signature, the "final" should not be made until after the signature, the latter immediately following the interval marking the end of the last sentence.

(5) RULE V.—The interval will be used as a divisional-point to separate continuous general-signals, as, for example, where they represent letters, syllables, and words in a telegraphic message, or, the "signals following" a signal to a force to scout. Each of these "signals following" are separate signals, but are a part of one sentence giving directions as to the scouting distance, bearing, line, and interval.

(6) RULE VI.—In making a tactical-signal which involves a numeral to follow, the "interval" is unnecessary as the signal "numerals follow" takes its place, but the intervals should appear between a tactical-signal and a compass course which relates to it and follows it.

(7) RULE VII.—A tactical movement may be ordered and signalled to the fleet by a spelled-out message, in which case the "Letters Call" would be displayed.

(8) RULE VIII.—The "Affirmative" and "Negative" may be used in answer to any signal. If a message is not understood, the "Interrogatory" (RWRR) will be displayed. The "Annuling," annuls the whole signal back to and including the code-call.

(9) RULE IX.—To indicate that an error has been made, make "Interval," then "Error," then "Interval," and begin with the word in which the error occurred.

(10) RULE X.—"Repeat" displayed once means "repeat last word"; displayed twice, "repeat last sentence"; displayed three times, "repeat last message."

(11) RULE XI.—When a ship intervenes between or masks the signal-lights of two others desiring to communicate, the intervening ship must repeat the displays.



(12) RULE XII.—But one course of messages is to be maintained at the same time. If the flagship or senior officer makes a call when communication is going on between two or more ships, all signalling must cease until the message sent by the flagship or senior ship is finished.

NOTE.—There is one exception to this rule: In cases of great urgency, and only when the receiving ships are all on such bearings that the signals made by one set of lights will not interfere with those being sent by the other.

(13) RULE XIII.—If it becomes necessary to put a signal message into cipher the *marking of the keyboard* is on no account to be changed to accomplish this object.

### VERY'S NIGHT-SYSTEM.

179. (1) This code is used to transmit only the "secondary meanings" of the U. S. Navy Code. A red star (R) stands for a · or dot and a green star (G) for a — or dash. The stars are projected into the air, one at a time, from a specially constructed pistol. It will be noted that every character is composed of a group of five stars. While the value of this system has been greatly lessened by the introduction of wireless telegraphy, it furnishes by reason of its portability a long distance method of communication for merchant auxiliaries, boat expeditions, and for special occasions.

NOTE.—In making a signal, cartridges of proper color are picked out and placed in proper order. A spare pistol and spare cartridges of both colors should always be at hand in case of a miss-fire. When all is ready the call is made as described below.

This system is based on the Dot and Dash Code, a red star representing a dot and a green star a dash. However, only signals that may be sent by the Navy Flag Code may be sent by this system, and the Conventional Signs are limited to the following:

General call: Rocket and green star.

Answering (acknowledgment): Red star (·).

Repeat: Green star (—).

Interval (separating the alphabet letters of a signal) :  $\begin{cases} \text{Red star.} \\ \text{Green star.} \end{cases}$

Execute: Rocket and red star.

Distress or danger: Red star several times.

The affirmative, negative, interrogatory, and annulling are as in flag signalling, P, K, O, and N.

(2) The general call is a rocket followed by one green star (G).

(3) The message call is a green star (G) without rocket.

(4) The answering or "I understand" is a red star (R).

(5) Repeat or "I do not understand" is a green star (G).

(6) Danger or distress is a red star (R) repeated several times in quick succession.

180. Very's night code is shown by the following: Red (·) and green (—) stars are used to spell out the numerals as given in the alphabet.

### General Instructions.

181. (1) Fleet, squadron, division, or ships' calls are denoted by being immediately preceded by a rocket.

(2) *All night-drill signals*, and signals which require a *change of formation, course, speed, order, or action* shall be considered *preparatory*. The *signal of execution* will be a *rocket*.

(3) All other messages are intended for immediate execution unless the message itself states or distinctly implies otherwise.

(4) All night-signal messages, whatever their nature, require an immediate response. If the message is understood, the immediate response will be R; if not understood, it will be G.

### Rules.

182. (1) RULE 1.—A ship desiring to exchange signals at night begins by making a "Call." This signal shall be repeated at intervals of about two minutes until it is answered.

NOTE.—It will be remembered that there are three calls: First, the general-call, which is to all ships that may be within signal distance; any ship seeing this call will answer at once without regard to the other ships. Second, the fleet, squadron, division, or ship's call, which is addressed to a particular ship or group. For example: "Rocket G" would call the whole force; "Rocket RRRR" would call the first fleet; "Rocket RRRR-GRRG-RGGR" would call the 10th ship, as shown on the list of vessels of the Navy, in the General Signal-Book; "Rocket RGG" would call the 4th division. These calls will be answered only by the chief of the group or the single ship called. Third, the message-call, which denotes the desire to communicate a second message to the same ship or group to which the preceding signal has been made, and will be answered only by the ship previously addressed. In case no previous signals have been made, the message-call may be used instead of the general-call, and will be so considered and answered by all.

(2) RULE 2.—Upon seeing a "Call," all ships to which it may be addressed should respond by making the "Answering."

(3) RULE 3.—Every distinct message must be preceded by a "Call" and the "Answering."

NOTE.—Examples: The *Virginia* arrives off a port at night where the flagship *Connecticut* and several other ships are at anchor. The *Virginia* makes the "General," or she may make the "Message-call"; the *Connecticut* immediately makes "Answering." The *Virginia* then makes her number "Rocket 9," if she belongs to and is regularly the ninth ship in the fleet. (A stranger coming in from another fleet would make "Rocket," followed by her number from the list.) *Connecticut* (flagship) answers by her number (Rocket "1"), or her number on the list; *Virginia* answers. She then, desiring "permission to anchor," would make the message-call followed by the signal, which would be answered by the *Connecticut* and follow the answer by "Affirmative." *Virginia* answers. *Connecticut* may wish to direct *Virginia* to anchor at discretion, in which case she would make the message-call and the proper signal, and this message-call, which is a part of continuous signalling to the same ship, would not be answered by other ships present. It will be noticed that in numbering the ships for use of Very's method of signaling the numbers begin with 30.

But one course of messages is to be maintained at the same time. It will be observed that a call made to a group of ships by an incoming ship will only be answered by the flagship or senior officer present. Ships, however, that may be conveniently placed for receiving signals from incoming ships or others desiring to signal to the flagship, will inform the latter at once.

(4) RULE 4.—All messages sent by the Very's system are general-signals. The General Signal-Book contains all signals for general use, including what has been formerly known as the telegraphic-dictionary and the geographical-list. In the general-signal part of the signal-book on the right side of the pages, there are placed for convenience of reference, a duplication of some of the signal-letters, but on the left side all signal-letters are original.

In sending a message by the Very's system, send the page number in the General Signal-Book and the number of the signal on the left-hand side of the page, counting from the top of the page.

(5) RULE 5.—In making a signal, the stars are projected deliberately, one by one, from the first star to the last, without regard to time intervals. It is desirable, however, that the stars should be projected vertically, or so as to fall in the direction of the receiver of the message, and that they should appear without very unequal intervals between them; at the same time, through some unforeseen cause a long interval may elapse between two stars of a message, but no account of this shall be taken unless the interval is prolonged to about a minute.

*A star may be broken by the shock of discharge and show several stars of the same color in the air. This will be recorded as one star.*

(6) RULE 6.—The person receiving the message will note the stars as they appear, dividing them into groups of four, without any regard to time intervals, thus ascertaining the signal-number.

(7) RULE 7.—When, after waiting about one minute, the receiver of the signal sees no more signal stars, he will consider the signal finished. If the signal is understood, he will make the "Answering"; if it is not, he will make "Repeat."

(8) RULE 8.—If, during the course of a signal, the receiver is led to believe that he or the sender has made a mistake, or if confusion of any kind arises, he will at once make the "Repeat."

(9) RULE 9.—If, during the course of a signal, the sender sees the "repeat," he will stop at once, wait about a minute and then recommence the signal from the beginning. If at the close of a

message he sees "Repeat" instead of the "Answering," he will recommence from the beginning.

(10) RULE 10.—The *red* star made and repeated in quick succession as a "call," without the rocket, is a signal of distress and indicates need of immediate assistance.

(11) RULE 11.—The divisional-point will be used to separate the numbers representing the page in the signal-book and the signal on the page.

NOTE.—Thus, a signal 5124 without the divisional-point might be page 51, signal 24, or page 512, signal 4. It will separate the numbers which represent the letters, syllables, and words of a telegraphic message. It will also appear in signals where it is necessary to designate an object first as "Designator" and afterwards as a divisional-point.

(12) RULE 12.—All exploded caps must be driven out as soon as possible after firing.

(13) RULE 13.—If it becomes necessary at any time to put a signal in cipher, the combinations of stars denoting the different figures are on no account to be changed to accomplish the object.

## TOWING.

183. (1) In towing, in thick weather, or at other times, the following special sound signals may be used if agreed upon previously, but some special arrangement must always be made between the commanding officers of the ships towing and being towed for communicating under various conditions of wind and weather.

(2) All signals to be preceded by a long blast of the steam-whistle of about seven seconds' duration.

(3) A single blast of the whistle to be about one-half second duration.

(4) A double blast of the whistle to be two single blasts made in quick succession.

(5) Interval between single blasts or between a double blast and a single blast to be one second.

## Signals.

Steer more to starboard.....	One single blast.
Steer more to port .....	Two single blasts.
Towline is fast, or is the towline fast?..	Three single blasts.
Shorten in on towline.....	One double and one single blast.
Veer on towline.....	One single and one double blast.
Let go towline.....	Two double blasts.

## INTERNATIONAL SIGNALS.

NOTE.—For Complete detailed instructions as to the use of the International Code, see International Signal-Book.

184. (1) These are a set of signals which have been adopted by all nations in order that all ships may have a method of signalling to each other.

(2) This code consists of twenty-six flags, burgees or pennants, (the same as the Navy Alphabetical Code) one for each letter in the alphabet, and a code-pennant which is also used as an answering-pennant.

(3) In the international code, any particular hoist has the same meaning in each language.

(4) When making a signal by this code, look up the signal in the international signal-book, and bend on (in order, reading from up, down), the flags corresponding to the letters abreast this signal.

(5) Hoist the code-pennant under the ship's ensign, and hoist the signal where it can best be seen.

(6) If receiving a message, the meaning will be found abreast the letters represented by the flags in the hoist.

(7) The following instructions show in a general way the manner in which the international signal-book is divided, and how the arrangement of the flags gives a distinctive character to the signal:

(a) **One-flag signals.**—B, C, D, L, P, Q, S, hoisted singly, have special significations. The code-flag over each of the signal-flags are signals of a general nature, of most frequent use. Signal-flags hoisted singly after *Numeral-signal No. 1* refer to the numeral table, as do also **two-flag signals** with code-flag *under them*.

(b) **Two-flag signals** without code-flag are urgent and important signals; with code-flag *over* them are latitude and longitude, time, barometer, and thermometer signals.

(c) **Three-flag signals** express points of compass, money, weights and measures, and all ordinary signals required for communication.

(d) **Four-flag signals** with a bargee (A or B) uppermost are geographical signals; with C uppermost are spelling or vocabulary signals; with G uppermost are names of men-of-war; with square flag uppermost are names of merchant vessels and are not in signal-book.

NOTE.—If the vessel flies a U. S. flag, it will be found in list of U. S. merchant vessels. Naval vessels are usually not supplied with merchant lists of foreign nations, and, therefore, the vessel cannot be generally made out; there can, however, be no doubt as to the meaning of a four-flag international signal with square flag on top.





### International "Code-Flag" and "Answering-Pennant."

NOTE.—When used as the "Code-flag" it is to be hoisted under the ensign.

When used as the "Answering-pennant" it is to be hoisted at the mast-head or where best seen.

### INTERNATIONAL SIGNALS OF DISTRESS.

185. When a vessel is in distress and requires assistance from other vessels or from the shore, the following shall be the signals to be used or displayed by her, either together or separately:

#### 186. In the daytime—

- (1) A gun or other explosive signal fired at intervals of about a minute;
- (2) The International-Code Signal of Distress indicated by NC;
- (3) The distant-signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball;
- (4) The distant-signal, consisting of a cone, point upward, having either above it or below it a ball or anything resembling a ball;\*
- (5) A continuous sounding with any fog-signal apparatus.

#### 187. At night—

- (1) A gun or other explosive signal fired at intervals of about a minute;
- (2) Flames on the vessel (as from a burning tar-barrel, oil-barrel, etc.);
- (3) Rockets or shells, throwing stars of any color or description, fired one at a time at short intervals.
- (4) A continuous sounding with any fog-signal apparatus.

### INTERNATIONAL SIGNALS FOR A PILOT.

188. The following signals, when used or displayed together, or separately, shall be deemed to be signals for a pilot:

#### 189. In the daytime—

- (1) The jack, to be hoisted at the fore;
- (2) The International-code pilot-signal indicated by PT;

\* NOTE.—This is purely a code-signal and is not one of the signals of distress given in the "Rules of the Road," the needless exhibition of which entails penalties upon the master of the vessel displaying it.

- (3) The International-code flag S, with or without the code-pennant over it;
- (4) The distant-signal, consisting of a cone, point upward, having above it two balls or shapes resembling balls.

#### 190. At night—

- (1) The pyrotechnic light, commonly known as a blue light, every fifteen minutes; or
- (2) A bright white light, flashed or shown at short or frequent intervals just above the bulwarks for about a minute at a time.

### SPECIAL SIGNALS.

#### Speed-Cones.

191. During the day, when underway, the speed of each ship is to be indicated by a cone,  $2\frac{1}{2}$  feet at base and 3 feet in height, yellow in color when hoisted to starboard and red when to port. It is hoisted at the yard-arm of ships in squadron. The cone is on the side toward the guide; the cone of the guide-vessel is on the side toward the other vessels. The place of hoist of the speed-cone must not be changed from one side to another during an evolution, and the second cone must be hoisted in its place before beginning to haul the first one down.

192. The meanings of the various positions of the speed-cone are as follows:

(1) Hoisted at yard-arm, *apex-up*—"Engines going ahead at standard speed."

(2) Hoisted part of the way to yard-arm, *apex-up*—"Engines going ahead at a standard speed proportionate to the cone's distance from yard-arm."

(3) Lowered *out of sight*—"Engines stopped."

(4) Hoisted part of way to yard-arm, *apex-down*—"Engines backing at a speed proportionate to the cone's distance from the yard-arm."





(5) Hoisted at yard-arm, *apex-down*—"Engines backing full speed."

(6) The full-speed (meal) pennant hoisted at the yard next to the speed-cone, *apex-up*, indicates "Going ahead one knot or more faster than standard speed."

168. (1) The position of the cone shall be changed to indicate a change of speed *as soon as the signal to change speed has been sent to the engine-room.*





(2) The senior officer may direct the use of two speed-cones, one on each side, when in column, in getting underway or coming to anchor, or when engaged in tactical drills. If the flagship hoists a second cone the other ships of the formation will do likewise without further orders.

### *Speed Indicators.*

			
<i>Going ahead at Standard Speed.</i>	<i>Going ahead at less than Standard Speed.</i>	<i>Engines Backing.</i>	<i>Engines Backing Full Speed.</i>

### *Night.*

#### *Using Electric Lamps.*

 <i>Steady White Light at Truck</i> <i>Information and going ahead at Standard Speed.</i>	 <i>Flashing White Light at Truck</i> <i>Going ahead at Half Speed or less than Half Speed.</i>	 <i>Steady Red Light at Truck</i> <i>Engines stopped.</i> <i>In emergency, toots for 10 s. from steam whistle also.</i>	 <i>Flashing Red Light at Truck</i> <i>Engines backing.</i> <i>In emergency, three blasts of the steam whistle also.</i>
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#### *Using Oil Lanterns.*

<i>White Lantern at Truck or Yard arm.</i> <i>Information and Going ahead at Standard Speed.</i>	<i>White Lantern at Truck or Yard arm, another half way up,</i> <i>Going ahead at Half Speed or less than Half Speed.</i>	<i>Red Lantern at Truck or Yard arm, Engines stopped.</i> <i>In emergency, toots for 10 s. from steam whistle also.</i>	<i>A Red Lantern and a White Lantern hoisted at the same level half way up,</i> <i>Engines backing.</i> <i>In emergency three blasts of the steam whistle also.</i>
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### Electric Truck-Lights.

193. Ships fitted with electric plants, use electric truck-lights at night, for the same purpose that speed-cones are used in the day. Their meaning is indicated as follows:

(1) *A steady white light*, at main-truck, is to be displayed **when steaming in formation**, and indicates: "*In formation and going ahead at standard speed.*"

(2) *Flashing the white light* indicates: "Going ahead at half speed or less than half speed."

(3) *Turning off the white light* indicates: "Temporarily out of formation."

(4) A steady red truck-light (without the white) indicates: "*Engines are stopped.*"

(5) *Flashing the red truck light*: "*Engines are backing.*"

(6) Displaying the letter "N" (two red lights) indicates: "*Breakdown—Not under control.*"

### Oil Lanterns.

194. If ship is not fitted with electric plant, oil lanterns are used instead of electric truck-lights, as follows:

(1) *One white lantern* at truck or yard-arm indicates: "In formation and going ahead at standard speed."

(2) *Two white lanterns*, one at truck or yard-arm, the other half-way up, indicate: "Going ahead at half speed or less than half speed."

(3) *White lanterns lowered* out of sight indicates: "Temporarily out of formation."

(4) *One red lantern* at truck or yard-arm indicates: "Engines stopped."

(5) One red lantern and one white lantern hoisted part way so that one lantern is on the same level as the other, or nearly so, indicates: "Engines are backing."

(6) *Two red lanterns* in the same hoist indicates: "*Breakdown—Not under control.*"

### Oil or Electric Screened Lights.

195. (1) The lights will be screened so as to show in any direction at will, but only through an arc of one point or less.

(2) *A steady white light* indicates: "Going ahead at *standard speed.*"

(3) *Flashing the white light*: "Going ahead at *half speed* or less than half speed."

(4) *A steady red light*: "*Engines stopped.*"

(5) *Flashing the red light*: "*Engines backing.*"

### General Remarks on Speed Lights.

196. (1) In column, in case of emergency, requiring a ship to stop, the signal for *stopping* is to be supplemented by toots on

the steam whistle for ten seconds, and that for *backing* always by three blasts of the steam whistle.

(2) When the white light is turned off it will be understood by ships astern that the ship has sheered *clear of the alignment*, and is thereby out of formation.

(3) The fore truck-lights are not to be used for speed indicators, except in case of the failure of those on the main.

(4) The truck-lights must not be used while under way for any other purpose than speed indicators.

(5) The signals for slowing, stopping, and backing must be kept displayed until a change is made calling for another signal.

(6) All speed lights are extinguished the moment an anchor is let go.

### Additional Lights, Personal Lights, etc.

**197.** (1) At night, when under way in formation, each ship shall carry, in addition to the lights prescribed by law, a white steering light on her rail aft, so screened as to show only from right astern to two points on each quarter.

(2) **All flagships** will carry a top-light at the after lower mast-head or upper top at night at sea when in company with other ships, and in port except when the absence-lights are displayed.

(3) **At anchor in port** a ship shall display a white light at her peak when her captain is absent at night with the intention of returning within twenty-four hours. If a flag officer is absent from his flagship at night with the intention of returning within twenty-four hours, his absence shall be indicated by four lights displayed at the peak or top for an admiral or vice-admiral, and three lights for a rear-admiral.

(4) **At night in approaching an anchorage** where men-of-war are likely to be found, all ships shall hoist at the peak two white lights in a vertical line. United States ships at anchor shall answer such signal by hoisting the same display.

### Signals of Life-Saving Service.

**198.** (1) The following signals, approved by the International Marine Conference, convened at Washington in October, 1889, have been adopted by the life-saving service, and will be used and recognized by the officers and employees as occasion may require:

(2) Upon the discovery of a wreck by night, the life-saving force will burn a red pyrotechnic light or a red rocket to signify: "You are seen; assistance will be given as soon as possible."

(3) A red flag waved on shore by day, or a red light, red rocket, or red Roman candle displayed by night, will signify: "Haul away."



(4) A white flag waved on shore by day, or a white light slowly swung back and forth, a white rocket, or a white Roman candle fired by night, will signify: "Slack away."

(5) Two flags, a white and a red, waved at the same time on shore by day, or two lights, a white and a red, slowly swung at the same time, or a blue pyrotechnic light burned by night will signify: "Do not attempt to land in your own boats. It is impossible."

(6) A man on shore beckoning by day, or two torches burning near together by night, will signify: "This is the best place to land."

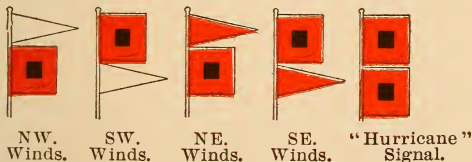
(7) Any of these signals may be answered from the vessel as follows: In the daytime, by waving a flag, handkerchief, a hat, or even the hand; at night, by firing a rocket, a blue light, a gun, or by showing a light over the ship's gunwale for a short time and then concealing it.

### STORM-SIGNALS.

199. The various civilized nations of the world give warning to mariners of the approach of storms. These notices are received by telegraph at various stations along the coast and indicate the approach of storms and the expected direction of the wind. In the United States the system of weather-signals is very complete, information of the approach of storms being received from various stations in the United States and even throughout the West Indies. These warnings are published at the various seaports by the display of flags by day and by lanterns at night, also by bulletins and reports furnished to newspapers. Every effort is made by the United States Weather Bureau to give these warnings as early as possible at all points where they may be of service to mariners and others.

#### United States Storm-Signals.

200. (1) The signal warnings are as follows:



Flags 8 feet square. Pennants 5 feet hoist, 12 feet fly.

#### Explanation.

(2) Storm-signals are displayed by the United States Weather Bureau at 141 stations situated on the Atlantic and Gulf coasts

of the United States from Eastport, Maine, to Brownsville, Texas. The station at Cape Henry, Jupiter, and Sand Key, Florida, are equipped for signalling by the International-Code, and are prepared to transmit by telegraph the messages of passing vessels.

(3) *Storm Warning Flags.*—

(a) A red flag, with a black center, indicates that a storm of marked violence is expected.

(b) The pennants displayed with the flags indicate the direction of the wind; red, easterly (from northeast to south); white, westerly (from southwest to north). The pennant above the flag indicates that the wind is expected to blow from the northerly quadrants; below, from southerly quadrants.

(c) By night a red light indicates easterly winds, and a white light above a red light, westerly winds.

(4) *Hurricane Warnings.*—

(a) Two red flags, with black centers; displayed one above the other, indicate the expected approach of tropical hurricanes, and also of those extremely severe and dangerous storms which occasionally move across the lakes and northern Atlantic coast.

(b) Hurricane warnings are not displayed at night.

### TO DRESS SHIP.

201. (1) Cross all but royal yards. Lower into places where secured, all derricks, booms, etc. Ship flag- and jack-staffs. Hoist a national ensign at each masthead. If the masts are the same height, the ensigns should be of the same size. At the peak or aft on a staff, display the largest ensign with which the ship is furnished. Forward on the jack-staff hoist the jack.

(2) If the dressing is complimentary to some other nation, then the ensign or standard of that nation shall be hoisted, as provided in the navy regulations. *In ships having less than three masts* the disposition of decorations shall be as nearly in accord with the foregoing as possible. At 8 a. m., the ship should be dressed and remain so until sundown.

(3) In three-masted ships the admiral's flag, commodore's broad-pennant, or the coachwhip pennant is flown from the main-truck, the vice-admiral's flag from the fore-truck, and the rear-admiral's flag from the mizzen-truck.

(4) In two-masted ships all these flags and pennants are hoisted at the main-truck.

(5) In dressing ship in two- or one-masted vessels, a national ensign shall be hoisted at the same masthead with any one of the

above personal flags, but in three-masted ships no ensign shall be displayed where a flag or pennant of a flag officer or senior officer is flying.

(6) In mastless ships these flags and pennants are displayed from the loftiest and most conspicuous hoist.

### To Full-Dress Ship.

202. (1) In addition to dressing the mastheads, when the masting of the ship will permit, a rainbow of flags will be arranged, reaching from the water-line forward to the water-line aft, by way of the end of the head-booms, topgallant mastheads, peak, and end of spanker boom.

(2) In two-masted ships the rainbow will extend from stem to taffrail by way of the topgallant or topmast head (if there is no topgallant mast); and in single-masted ships from the stem to the masthead and thence in a double line to the heads of the after boat davits on each side.

(3) As it is intended that all ships shall, where possible, be dressed alike, the following explanation of the appended table is given as a guide to insure uniformity.

(4) **Two-masted ships** commencing at the fore-topgallant masthead with line No. 1, stop the flags on the line in order, one foot apart, and discard any surplus flags that may not be required. Between the fore and main, begin stopping on the flags from each mast and discard unnecessary flags from the middle. From the mainmast to the taffrail begin at the mast and stop the flags on in order, discarding surplus flags.

(5) **For single-masted ships.** The flags for line No. 1 will be stopped on as described above for two-masted ships. Line No. 2 will be hoisted on the starboard side and line No. 3 on the port side, the flags being stopped on in order and the surplus flags discarded.

(6) **For three-masted ships.** The upper flag of line No. 1 will appear at the fore-topgallant masthead and the other flags stopped on in order to the head booms and waterline. The first flag abaft the foremast will be the upper flag of line No. 2 and the flags stopped on in order towards the mainmast discarding the surplus flags for use between the main and mizzen. The first flag abaft the mainmast will be the *lower flag* of line No. 2 and the flags stopped on in inverse order. This arrangement places the guide-flag abaft the foremast and also next abaft the mainmast. The upper flag in line No. 3 will appear at the mizzen-topgallant masthead and the other flags stopped on in order to the peak, spanker boom-end, and waterline.

## ARRANGEMENT OF FLAGS.

Foremast to Stem.	Foremast to Mainmast.	Mainmast to Taffrail.
No. 1 Numeral	Guide	No. 1 Numeral
First Repeater	Preparatory	First Repeater
No. 2 Numeral	Cornet	No. 2 Numeral
Second Repeater	Answering	Second Repeater
No. 3 Numeral	Quarantine	No. 3 Numeral
Third Repeater	Meal	Third Repeater
No. 4 Numeral	Dispatch	No. 4 Numeral
C Alphabet Code	Church	F Alphabet Code
No. 5 Numeral	Affirmative	No. 5 Numeral
D Alphabet Code	Interrogatory	G Alphabet Code
No. 6 Numeral	Annuling	No. 6 Numeral
E Alphabet Code	Dispatch	Position
No. 7 Numeral	Negative	No. 7 Numeral
A Alphabet Code	Affirmative	Church
No. 8 Numeral	Position	No. 8 Numeral
B Alphabet Code	Danger	O Alphabet Code
No. 9 Numeral	Meal	No. 9 Numeral
H Alphabet Code	Quarantine	R Alphabet Code
No. 0 Numeral	Answering	No. 0 Numeral
I Alphabet Code	Cornet	S Alphabet Code
J do do	Preparatory	T do do
K do do	Guide	U do do
L do do		V do do
M do do		W do do
N do do		X do do
O do do		Y do do
P do do		Z do do

## TO PASS IN REVIEW.

203a. (1) *The directions for passing in review apply equally to ships reviewed at anchor.*

(2) *The order, formation, speed, and distance, and the uniform will be prescribed by signal or order.*

(3) **For the President.**—The uniform for officers will be special full dress. The marine detachment, in full dress, shall be paraded aft, on the side next to the reviewing vessel. Forward of the marines, the crew shall man the rail in one rank, fore and aft, close to the side, officers of divisions in the rear of their divisions, all other officers in line on bridge or bridges.

(4) The men will be evenly spaced along the side and may take distance by extending their arms or elbows, but will have their hands at their sides at the time of the review. Men will not be stationed in tops of battleships or on turrets or on bridges on the midship line.

(5) In being reviewed, ships that have boats so stowed that they interfere with manning the rail continuously will, if practicable, restow them on the inboard nests or anchor them in-shore, so that the line of men at the rail shall be continuous. Boats at davits shall be lowered flush with the rail or anchored.

(6) All broadside guns will be trained abeam and turret guns fore and aft and all level.

(7) As each ship arrives at a point where the bridge of the reviewing-vessel bears four points forward of the bridge of the ship reviewed, her officers and men shall salute, and shall remain in that position, the marine detachment present arms, the drums give four ruffles, and the bugles sound four flourishes; the ruffles and flourishes shall be followed by the National Anthem by the band.

(8) As soon as well clear after having passed or been passed by the reviewing-vessel, each ship shall fire a national salute, officers and crew resuming the position of "attention" at the first gun.

(9) Officers and men shall be at their stations for manning the rail before the ship has arrived within 1200 yards of the reviewing-vessel and shall remain at their stations until the reviewing-ship has been passed by more than 1200 yards.

(10) **For the Secretary of the Navy.**—The same honors shall be paid, except that the crew shall be formed at quarters for inspection, facing the reviewing-vessel. The ruffles and flourishes shall be followed by a march by the band, and the salute shall consist of seventeen (17) guns.

## PART IX

### BOAT-SIGNALS.

204. (1) **Part IX of the Boat-Book** contains a list of boat-signals, taken from the General Signal-Book, alphabetically arranged according to their leading words and repeated under one or more of their principal words.

*The combination of signal-letters in this list are used for no other purpose, and cannot therefore be understood as applying to ships.*

(2) **Flag-signals made by boats** are always from this list.

205. (1) **When a signal is addressed** to the boats of any particular fleet, squadron, division, or ship, the distinguishing-flag or pennant of that fleet, squadron, division or ship will be placed *above* the signal or displayed at the same time as the signal. If no distinguishing-flag or pennant is over the signal, or displayed at the same time as the signal it will apply to the boats of the ships present.

(2) Similarly, a distinguishing-flag or pennant *under* the signal will exempt the boats of a squadron, division, or ship as the flag or pennant may indicate.

(3) The signal may, in like manner, be made to apply to any boat, by placing the distinguishing-pennant of the ship and the boat's number above the signal, or hoisting them in a separate hoist, at the same time as the signal.

(4) **The division and squadron movement pennant and flag** may be used for division flotilla and squadron flotilla movements and for a steamer tactical flotilla, in a similar manner to their use for division and squadron movements of ships.

(5) **In general**, when more than one ship is present, the proper distinguishing-flag or pennant should always be used in signalling boats, unless the signal refers to the boats of all ships present.

(6) **In answering a signal to boats** the officer commanding each *ships' flotilla* should not answer until each boat in his flotilla shall have answered.

(7) **In making boat-signals**, the flags and pennants of the Navy Code are used in the same manner as in making other flag-signals in the General Signal-Book.

(8) **Night-signals to boats** will be made by the two-arm semaphore, torch, portable, lantern, electric, or Very's systems in the



same manner as other signals from the General Signal-Book. The answer will be made from boats by a hand-lantern, torch, or by a Very's red star.

(9) **Very's signals** made to boats or by boats will be made and read in the same manner as described for making Very's signals from the General Signal-Book, except that the pages referred to will be pages of the Boat-Book.

(10) **Boats away from the ship** must always keep a good look-out for signals.

# LINE OF BEARING CHANGE. (Bearings magnetic.)

NORTHEAST QUADRANT.		SOUTHEAST QUADRANT.		NORTHWEST QUADRANT.		SOUTHWEST QUADRANT.	
Sig.	Compass.	Sig.	Compass.	Sig.	Compass.	Sig.	Compass.
<b>FM</b>	<b>North.</b>	<b>GV</b>	<b>East.</b>	—	—	<b>JM</b>	<b>West.</b>
<b>FO</b>	N. $\frac{1}{4}$ E.	<b>GW</b>	E. $\frac{1}{4}$ S.	<b>IE</b>	N. $\frac{1}{4}$ W.	<b>JO</b>	W. $\frac{1}{4}$ S.
<b>FP</b>	N. $\frac{1}{2}$ E.	<b>GX</b>	E. $\frac{1}{2}$ S.	<b>IF</b>	N. $\frac{1}{2}$ W.	<b>JP</b>	W. $\frac{1}{2}$ S.
<b>FQ</b>	N. $\frac{3}{4}$ E.	<b>GY</b>	E. $\frac{3}{4}$ S.	<b>IG</b>	N. $\frac{3}{4}$ W.	<b>JQ</b>	W. $\frac{3}{4}$ S.
<b>FR</b>	N. by E.	<b>GZ</b>	E. by S.	<b>IH</b>	N. by W.	<b>JR</b>	W. by S.
<b>FS</b>	N. by E. $\frac{1}{4}$ E.	<b>HA</b>	ESE. $\frac{3}{4}$ E.	<b>IJ</b>	N. by W. $\frac{1}{4}$ W.	<b>JS</b>	WSW. $\frac{3}{4}$ W.
<b>FT</b>	N. by E. $\frac{1}{2}$ E.	<b>HB</b>	ESE. $\frac{1}{2}$ E.	<b>IK</b>	N. by W. $\frac{1}{2}$ W.	<b>JT</b>	WSW. $\frac{1}{2}$ W.
<b>FU</b>	N. by E. $\frac{3}{4}$ E.	<b>HC</b>	ESE. $\frac{1}{4}$ E.	<b>IL</b>	N. by W. $\frac{3}{4}$ W.	<b>JU</b>	WSW. $\frac{1}{4}$ W.
<b>FV</b>	<b>NNE.</b>	<b>HD</b>	<b>ESE.</b>	<b>IM</b>	<b>NNW.</b>	<b>JV</b>	<b>WSW.</b>
<b>FW</b>	NNE. $\frac{1}{4}$ E.	<b>HE</b>	SE. by E. $\frac{3}{4}$ E.	<b>IO</b>	NNW. $\frac{1}{4}$ W.	<b>JW</b>	SW. by W. $\frac{3}{4}$ W.
<b>FX</b>	NNE. $\frac{1}{2}$ E.	<b>HF</b>	SE. by E. $\frac{1}{2}$ E.	<b>IP</b>	NNW. $\frac{1}{2}$ W.	<b>JX</b>	SW. by W. $\frac{1}{2}$ W.
<b>FY</b>	NNE. $\frac{3}{4}$ E.	<b>HG</b>	SE. by E. $\frac{1}{4}$ E.	<b>IQ</b>	NNW. $\frac{3}{4}$ W.	<b>JY</b>	SW. by W. $\frac{1}{4}$ W.
<b>FZ</b>	<b>NE. by N.</b>	<b>HI</b>	<b>SE. by E.</b>	<b>IR</b>	<b>NW. by N.</b>	<b>JZ</b>	<b>SW. by W.</b>
<b>GA</b>	NE. $\frac{3}{4}$ N.	<b>HJ</b>	SE. $\frac{3}{4}$ E.	<b>IS</b>	NW. $\frac{3}{4}$ N.	<b>LA</b>	SW. $\frac{3}{4}$ W.
<b>GB</b>	NE. $\frac{1}{2}$ N.	<b>HK</b>	SE. $\frac{1}{2}$ E.	<b>IT</b>	NW. $\frac{1}{2}$ N.	<b>LB</b>	SW. $\frac{1}{2}$ W.
<b>GC</b>	NE. $\frac{1}{4}$ N.	<b>HL</b>	SE. $\frac{1}{4}$ E.	<b>IU</b>	NW. $\frac{1}{4}$ N.	<b>LC</b>	SW. $\frac{1}{4}$ W.
<b>GD</b>	<b>NE.</b>	<b>HM</b>	<b>SE.</b>	<b>IV</b>	<b>NW.</b>	<b>LD</b>	<b>SW.</b>
<b>GE</b>	NE. $\frac{1}{4}$ E.	<b>HO</b>	SE. $\frac{1}{4}$ S.	<b>IW</b>	NW. $\frac{1}{4}$ W.	<b>LE</b>	SW. $\frac{1}{4}$ S.
<b>GF</b>	NE. $\frac{1}{2}$ E.	<b>HP</b>	SE. $\frac{1}{2}$ S.	<b>IX</b>	NW. $\frac{1}{2}$ W.	<b>LF</b>	SW. $\frac{1}{2}$ S.
<b>GH</b>	NE. $\frac{3}{4}$ E.	<b>HQ</b>	SE. $\frac{3}{4}$ S.	<b>IY</b>	NW. $\frac{3}{4}$ W.	<b>LG</b>	SW. $\frac{3}{4}$ S.
<b>GI</b>	<b>NE. by E.</b>	<b>HR</b>	<b>SE. by S.</b>	<b>IZ</b>	<b>NW. by W.</b>	<b>LH</b>	<b>SW. by S.</b>
<b>GJ</b>	NE. by E. $\frac{1}{4}$ E.	<b>HS</b>	SSE. $\frac{3}{4}$ E.	<b>JA</b>	NW. by W. $\frac{1}{4}$ W.	<b>LI</b>	SSW. $\frac{3}{4}$ W.
<b>GK</b>	NE. by E. $\frac{1}{2}$ E.	<b>HT</b>	SSE. $\frac{1}{2}$ E.	<b>JB</b>	NW. by W. $\frac{1}{2}$ W.	<b>LJ</b>	SSW. $\frac{1}{2}$ W.
<b>GL</b>	NE. by E. $\frac{3}{4}$ E.	<b>HU</b>	SSE. $\frac{1}{4}$ E.	<b>JC</b>	NW. by W. $\frac{3}{4}$ W.	<b>LK</b>	SSW. $\frac{1}{4}$ W.
<b>GM</b>	<b>ENE.</b>	<b>HV</b>	<b>SSE.</b>	<b>JD</b>	<b>WNW.</b>	<b>LM</b>	<b>SSW.</b>
<b>GO</b>	ENE. $\frac{1}{4}$ E.	<b>HW</b>	S. by E. $\frac{3}{4}$ E.	<b>JE</b>	WNW. $\frac{1}{4}$ W.	<b>LO</b>	S. by W. $\frac{3}{4}$ W.
<b>GP</b>	ENE. $\frac{1}{2}$ E.	<b>HX</b>	S. by E. $\frac{1}{2}$ E.	<b>JF</b>	WNW. $\frac{1}{2}$ W.	<b>LP</b>	S. by W. $\frac{1}{2}$ W.
<b>GQ</b>	ENE. $\frac{3}{4}$ E.	<b>HY</b>	S. by E. $\frac{1}{4}$ E.	<b>JG</b>	WNW. $\frac{3}{4}$ W.	<b>LQ</b>	S. by W. $\frac{1}{4}$ W.
<b>GR</b>	<b>E. by N.</b>	<b>HZ</b>	<b>S. by E.</b>	<b>JH</b>	<b>W. by N.</b>	<b>LR</b>	<b>S. by W.</b>
<b>GS</b>	E. $\frac{3}{4}$ N.	<b>IA</b>	S. $\frac{3}{4}$ E.	<b>JI</b>	W. $\frac{3}{4}$ N.	<b>LS</b>	S. $\frac{3}{4}$ W.
<b>GT</b>	E. $\frac{1}{2}$ N.	<b>IB</b>	S. $\frac{1}{2}$ E.	<b>JK</b>	W. $\frac{1}{2}$ N.	<b>LT</b>	S. $\frac{1}{2}$ W.
<b>GU</b>	E. $\frac{1}{4}$ N.	<b>IC</b>	S. $\frac{1}{4}$ E.	<b>JL</b>	W. $\frac{1}{4}$ N.	<b>LU</b>	S. $\frac{1}{4}$ W.
<b>GV</b>	<b>East.</b>	<b>ID</b>	<b>South.</b>	<b>JM</b>	<b>West.</b>	—	—

## TIME-SIGNALS.

Minutes of time will be indicated by numeral below.

Hours ..	1 A. M.	2 A. M.	3 A. M.	4 A. M.	5 A. M.	6 A. M.
Signal ..	<b>L V</b>	<b>L W</b>	<b>L X</b>	<b>L Y</b>	<b>L Z</b>	<b>M A</b>

Hours ..	7 A. M.	8 A. M.	9 A. M.	10 A. M.	11 A. M.	Noon.
Signal ..	<b>M B</b>	<b>M C</b>	<b>M D</b>	<b>M E</b>	<b>M F</b>	<b>M G</b>

Hours ..	1 P. M.	2 P. M.	3 P. M.	4 P. M.	5 P. M.	6 P. M.
Signal ..	<b>M H</b>	<b>H I</b>	<b>M J</b>	<b>M K</b>	<b>M L</b>	<b>M O</b>

Hours ..	7 P. M.	8 P. M.	9 P. M.	10 P. M.	11 P. M.	Midnight.
Signal ..	<b>M P</b>	<b>M Q</b>	<b>M R</b>	<b>M S</b>	<b>M T</b>	<b>M U</b>

## DATE-SIGNALS.

The day of the month will be indicated by numeral below.

Month ..	Jan.	Feb.	Mar.	Apr.	May.	June.
Signal ..	<b>M V</b>	<b>M W</b>	<b>M X</b>	<b>M Y</b>	<b>M Z</b>	<b>O A</b>

Month ..	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Signal ..	<b>O B</b>	<b>O C</b>	<b>O D</b>	<b>O E</b>	<b>O F</b>	<b>O G</b>

**OH**—Year—The, is indicated by numeral following.

# TABLE OF COMPASS-SIGNALS BY QUARTER-POINTS. (Compass-signals—magnetic.)

NORTHEAST QUADRANT.		SOUTHEAST QUADRANT.		NORTHWEST QUADRANT.		SOUTHWEST QUADRANT.	
Sig.	Compass.	Sig.	Compass.	Sig.	Compass.	Sig.	Compass.
BQC	North.	BRK	East.	BSU	North.	BUD	West.
BQD	N. $\frac{1}{4}$ E.	BRL	E. $\frac{1}{4}$ S.	BSV	N. $\frac{1}{4}$ W.	BUE	W. $\frac{1}{4}$ S.
BQE	N. $\frac{1}{2}$ E.	BRM	E. $\frac{1}{2}$ S.	BSW	N. $\frac{1}{2}$ W.	BUF	W. $\frac{1}{2}$ S.
BQF	N. $\frac{3}{4}$ E.	BRN	E. $\frac{3}{4}$ S.	BSX	N. $\frac{3}{4}$ W.	BUG	W. $\frac{3}{4}$ S.
BQG	N. by E.	BRO	E. by S.	BSY	N. by W.	BUH	W. by S.
BQH	N. by E. $\frac{1}{4}$ E.	BRP	ESE. $\frac{3}{4}$ E.	BSZ	N. by W. $\frac{1}{4}$ W.	BUI	WSW. $\frac{3}{4}$ W.
BQI	N. by E. $\frac{1}{2}$ E.	BRQ	ESE. $\frac{1}{2}$ E.	BTA	N. by W. $\frac{1}{2}$ W.	BUJ	WSW. $\frac{1}{2}$ W.
BQJ	N. by E. $\frac{3}{4}$ E.	BRs	ESE. $\frac{1}{4}$ E.	BTC	N. by W. $\frac{3}{4}$ W.	BUK	WSW. $\frac{1}{4}$ W.
BQK	NNE.	BRT	ESE.	BTD	NNW.	BUL	WSW.
BQL	NNE. $\frac{1}{4}$ E.	BRU	SE. by E. $\frac{3}{4}$ E.	BTE	NNW. $\frac{1}{4}$ W.	BUM	SW. by W. $\frac{3}{4}$ W.
BQM	NNE. $\frac{1}{2}$ E.	BRV	SE. by E. $\frac{1}{2}$ E.	BTf	NNW. $\frac{1}{2}$ W.	BUN	SW. by W. $\frac{1}{2}$ W.
BQN	NNE. $\frac{3}{4}$ E.	BRW	SE. by E. $\frac{1}{4}$ E.	BTG	NNW. $\frac{3}{4}$ W.	BUO	SW. by W. $\frac{1}{4}$ W.
BQO	NE. by N.	BRX	SE. by E.	BTH	NW. by N.	BUP	SW. by W.
BQP	NE. $\frac{3}{4}$ N.	BRY	SE. $\frac{3}{4}$ E.	BTI	NW. $\frac{3}{4}$ N.	BUQ	SW. $\frac{3}{4}$ W.
BQR	NE. $\frac{1}{2}$ N.	BRZ	SE. $\frac{1}{2}$ E.	BTJ	NW. $\frac{1}{2}$ N.	BUR	SW. $\frac{1}{2}$ W.
BQS	NE. $\frac{1}{4}$ N.	BSA	SE. $\frac{1}{4}$ E.	BTk	NW. $\frac{1}{4}$ N.	BUS	SW. $\frac{1}{4}$ W.
BQT	NE.	BSC	SE.	BTL	NW.	BUT	SW.
BQU	NE. $\frac{1}{4}$ E.	BSD	SE. $\frac{1}{4}$ S.	BTM	NW. $\frac{1}{4}$ W.	BUV	SW. $\frac{1}{4}$ S.
BQV	NE. $\frac{1}{2}$ E.	BSE	SE. $\frac{1}{2}$ S.	BTN	NW. $\frac{1}{2}$ W.	BUW	SW. $\frac{1}{2}$ S.
BQW	NE. $\frac{3}{4}$ E.	BSF	SE. $\frac{3}{4}$ S.	BTO	NW. $\frac{3}{4}$ W.	BUX	SW. $\frac{3}{4}$ S.
BQX	NE. by E.	BSG	SE. by S.	BTP	NW. by W.	BUY	SW. by S.
BQY	NE. by E. $\frac{1}{4}$ E.	BSH	SSE. $\frac{3}{4}$ E.	BTQ	NW. by W. $\frac{1}{4}$ W.	BUZ	SSW. $\frac{3}{4}$ W.
BQZ	NE. by E. $\frac{1}{2}$ E.	BSI	SSE. $\frac{1}{2}$ E.	BTR	NW. by W. $\frac{1}{2}$ W.	BVA	SSW. $\frac{1}{2}$ W.
BRA	NE. by E. $\frac{3}{4}$ E.	BSJ	SSE. $\frac{1}{4}$ E.	BTS	NW. by W. $\frac{3}{4}$ W.	BVC	SSW. $\frac{1}{4}$ W.
BRC	ENE.	BSK	SSE.	BTU	WNW.	BVD	SSW.
BRD	ENE. $\frac{1}{4}$ E.	BSL	S. by E. $\frac{3}{4}$ E.	BTv	WNW. $\frac{1}{4}$ W.	BVE	S. by W. $\frac{3}{4}$ W.
BRE	ENE. $\frac{1}{2}$ E.	BSM	S. by E. $\frac{1}{2}$ E.	BTW	WNW. $\frac{1}{2}$ W.	BVF	S. by W. $\frac{1}{2}$ W.
BRF	ENE. $\frac{3}{4}$ E.	BSN	S. by E. $\frac{1}{4}$ E.	BTX	WNW. $\frac{3}{4}$ W.	BVG	S. by W. $\frac{1}{4}$ W.
BRG	E. by N.	BSO	S. by E.	BTY	W. by N.	BVH	S. by W.
BRH	E. $\frac{3}{4}$ N.	BSP	S. $\frac{3}{4}$ E.	BTZ	W. $\frac{3}{4}$ N.	BVI	S. $\frac{3}{4}$ W.
BRI	E. $\frac{1}{2}$ N.	BSQ	S. $\frac{1}{2}$ E.	BUA	W. $\frac{1}{2}$ N.	BVJ	S. $\frac{1}{2}$ W.
BRJ	E. $\frac{1}{4}$ N.	BSR	S. $\frac{1}{4}$ E.	BUC	W. $\frac{1}{4}$ N.	BVK	S. $\frac{1}{4}$ W.
BRK	East.	BST	South.	BUD	West.	BVL	South.

### Formation and Order.

NOTE.—Flotilla formations will habitually be in *natural order* unless otherwise indicated.

Flotilla formations will habitually be on *starboard beam* unless otherwise indicated.

*On beam* will habitually mean with leaders in the formation abreast the lower boom.

#### LETTERS

#### LETTERS

- MLA** Form column.
- MLB** Form column, open order.
- MLC** Form column, on this or designated boat.
- MLD** Form column on beam of designated ship.
- MLE** Formation, line.
- MLF** Form line on this or designated boat.
- MLG** Form line on beam of designated ship.
- MLH** Form ships' flotillas in column on beam of their respective ships.
- MLI** Form ships' flotillas in column on beam of designated ship.
- MLJ** Form ships' flotillas in line on beam of their respective ships.
- MLK** Form ships' flotillas in line on beam of designated ship.
- MLN** Form column of ships' flotillas on beam of designated ship.
- MLO** Form line of ships' flotillas on beam of designated ship.
- MLP** Form line of ships' flotillas in column of divisions on beam of designated ship.
- MLQ** Form ships' flotillas in line in column of divisions on beam of designated ship.
- MLR** Form ships' flotillas in column in line of divisions on beam of designated ship.
- MLS** Form column of ships' flotillas in line of divisions on beam of designated ship.
- MLT** Form line of ships' flotillas in column of squadrons on beam of designated ship.
- MLU** Form ships' flotillas in line in column of squadrons on beam of designated ship.
- MLV** Form ships' flotillas in column in line of squadrons on beam of designated ship.
- MLW**
- MLX** Form column of ships' flotillas in line of squadrons on beam of designated ship.

Formation and Order.—*Continued.*

## LETTERS

## LETTERS

- MLY** \*Form steamer tactical flotilla in column on beam of designated ship.
- MLZ** \*Form steamer tactical flotilla in column of squadrons on beam of designated ship.
- MNA** \*Form steamer tactical flotilla in column of divisions on beam of designated ship.
- MNB** \*Form steamer tactical flotilla in line on beam of designated ship.
- MNC** \*Form steamer tactical flotilla in line of squadrons on beam of designated ship.
- MND** \*Form steamer tactical flotilla in line of divisions on beam of designated ship.
- MNE** Form ships' flotillas for service indicated.
- MNF** Form ships' flotillas for service as previously arranged (or instructed).
- MNG** Form ships' flotillas according to instructions.
- MNH** Formation, line of squadrons.
- MNI** Formation, line of divisions.
- MNJ** Formation, column of squadrons.
- MNK** Formation, column of divisions.
- MNL** Formation, Order of ships' flotillas in, is as shown by their ships' distinguishing-pennants.
- MNO** Formation, Form in present, in order shown by ships' distinguishing-pennants.
- MNP** Formation, Close up and assume proper numbers in, without regard to boat-s dropped out.
- MNQ** Formation, Your number in, is indicated by numeral.

\*NOTE.—This steamer tactical flotilla will habitually consist of a steamer (or steamers, as may be indicated) from each ship of the tactical fleet, squadron, division, or other ships as may be indicated by distinguishing-flags or pennants.

A division, by use of two steamers from each ship, may form a temporary tactical flotilla squadron for exercises; similarly, a squadron may form a temporary tactical flotilla fleet; or any group of ships may form a temporary tactical flotilla division, or squadron, by the use of one or more steamers from each ship.

In every case, each steamer will be in charge of a watch and division officer, and will have masts stepped, a speed cone, and be otherwise prepared for signalling, and an officer will be designated to conduct the drill, either from ship or flag-boat, preferably the latter in the formation.

The natural order of steamers in the formation will be that of their parent ships in line, and the steamers will be maneuvered as though they were ships (four forming a division, eight a squadron, etc.) by the tactical-signals of the Boat Code.

The execution of the maneuvers of a tactical fleet, squadron, or division, as explained in the Tactical Signal-Book, apply also to the maneuvers for a similar formation of steamers engaged in tactical-drills, and all officers should be thoroughly familiar with them.



**Formation and Order.**—*Continued.*

## LETTERS

## LETTERS

<b>M N R</b>	Formation, Leave the, and follow at such speed as you can.
<b>M N S</b>	Formation, Leave the, and return to your ship.
<b>M N T</b>	
<b>M N U</b>	Order, Natural.
<b>M N V</b>	Order, Inverted.
<b>M N W</b>	Port beam.
<b>M N X</b>	Starboard beam.

**Primary Movements.**

<b>M N Y</b>	Boats right. (Eight points unless otherwise indicated.)
<b>M N Z</b>	Boats left. (Eight points unless otherwise indicated.)
<b>M O A</b>	Boats right about.
<b>M O B</b>	Boats left about.
<b>M O C</b>	Column-s right. (Eight points unless otherwise indicated.)
<b>M O D</b>	Column-s left. (Eight points unless otherwise indicated.)
<b>M O E</b>	Countermarch—Head of column-s right about.
<b>M O F</b>	Countermarch—Head of column-s left about.
<b>M O G</b>	Ships' flotilla-s column right. (Eight points unless otherwise indicated.)
<b>M O H</b>	Ships' flotilla-s column left. (Eight points unless otherwise indicated.)

**Evolutions from Line—Oblique Method.**

<b>M O I</b>	Form column—Right boat forward, other boats right oblique. (See signals "Line of Bearing Change," beginning <b>FM</b> .)
<b>M O J</b>	Form column—Left boat forward, other boats left oblique. (See signals, "Line of Bearing Change," beginning <b>FM</b> .)
<b>M O K</b>	Change front to right—Guide right. (Change is eight points unless otherwise indicated by numeral, or by compass-signal.)
<b>M O L</b>	Change front to left—Guide left. (Change is eight points unless otherwise indicated by numeral or by compass-signal.)
<b>M O N</b>	Form column of ships' flotillas—Right ship's flotilla forward, left ships' flotillas right oblique—Guide right.

# **Evolutions from Line—Oblique Method.—***Continued.*

LETTERS

LETTERS

**M O P** Form column of ships' flotillas—Left ship's flotilla forward, right ships' flotillas left oblique—Guide left.

**M O Q**

**M O R** Form line of ships' flotillas—Right boats of ships' flotillas forward, other boats right oblique.

**M O S** Form line of ships' flotillas—Left boats of ships' flotillas forward, other boats left oblique.

—— Line of bearing change. (See table beginning **F M.**)

**M O T** \*Form column of divisions (or squadrons)—Right division forward, left divisions right oblique—Guide right.

**M O U** \*Form column of divisions (or squadrons)—Left division forward—Right divisions left oblique—Guide left.

**M O V** \*Form line of divisions (or squadrons)—Right boats of divisions forward, other boats right oblique.

**M O W** \*Form line of divisions (or squadrons)—Left boats of divisions forward, other boats left oblique.

## **Evolutions from Line—Rectangular Method.**

**M O X** Change front to right—I. Boats right, head of column right. (Change is eight points unless otherwise indicated by numeral or by compass-signal.) 2. Boats left.

**M O Y** Change front to left—I. Boats left, head of column left. (Change is eight points unless otherwise indicated by numeral or by compass-signal.) 2. Boats right.

**M O Z** Form column to the front (or rear) on the right boat—I. Boats right. 2. Head of Column left (or right).

**M P A** Form column to the front (or rear) on the left boat—I. Boats left. 2. Head of column right (or left).

**M P B** Form line of ships' flotillas to the front (or rear) on the right ship's flotilla—I. Boats right. 2. Ships' flotillas column left (or right).

\* NOTE.—Applicable to steamer tactical flotillas only.

Evolutions from Line—Rectangular Method.—*Continued.*

LETTERS

LETTERS

- MP C** Form line of ships' flotillas to the front (or rear) on the left ship's flotilla—1. Boats left. 2. Ships' flotillas column right (or left).
- MP D** Form column of ships' flotillas to the front (or rear) on the right ship's flotilla—1. Boats right. 2. Leading flotilla boats left (or right), rear flotillas forward.
- MP E** Form column of ships' flotillas to the front (or rear) on the left ship's flotilla—1. Boats left. 2. Leading flotilla boats right (or left), rear flotillas forward.
- MP F** \*Form line of divisions (or squadrons) to the front (or rear) on the right boats—1. Boats right. 2. Divisions head of columns left (or right).
- MP G** \*Form line of divisions (or squadrons) to the front (or rear) on the left boats—1. Boats left. 2. Divisions head of columns right (or left).
- MP H** \*Form column of divisions (or squadrons) to the front (or rear) on the right boats. 1. Boats right. 2. Leading division boats left (or right), rear divisions forward.
- MP I** \*Form column of divisions (or squadrons) to the front (or rear) on the left boats—1. Boats left. 2. Leading division boats right (or left), rear divisions forward.

## Evolutions from Column—Oblique Method.

- MP J** Form line to the front, right oblique—Guide left. (See signals "Line of Bearing Change" beginning **FM**.)
- MP K** Form line to the front, left oblique—Guide right. (See signals "Line of Bearing Change" beginning **FM**.)
- MPL**
- MP N** Form line of ships' flotillas to the front—Heads of rear ships' flotillas, right oblique—Guide left.
- MP O** Form line of ships' flotillas to the front—Heads of rear ships' flotillas, left oblique—Guide right.

\* NOTE.—Applicable to steamer tactical flotillas only.

# Evolutions from Column—Oblique Method.—*Continued.*

LETTERS

LETTERS

**MPQ** Form column of ships' flotillas—Heads of ships' flotillas forward, other boats, right oblique—Guide left.

**MPR** Form column of ships' flotillas—Heads of ships' flotillas forward, other boats, left oblique—Guide right.

**MPS** \*Form line of divisions (or squadrons) to the front—Heads of rear divisions right oblique—Guide left.

**MPT** \*Form line of divisions (or squadrons) to the front—Heads of rear divisions, left oblique—Guide right.

**MPU** \*Form column of divisions (or squadrons)—Heads of divisions forward, other boats right oblique—Guide left.

**MPV** \*Form column of divisions (or squadrons)—Heads of divisions forward, other boats, left oblique—Guide right.

**MPW** \*Form indented column to starboard—Even numbered boats will, unless squadrons or divisions are indicated.

**MPX** \*Form indented column to port—Even numbered boats will, unless squadrons or divisions are indicated.

—— Line of bearing change. (See table beginning F.M.)

## Evolutions from Column—Rectangular Method.

**MPY** Form line to the front (or rear)—1. Head of column right. 2. Boats left (or right).

**MPZ** Form line to the front (or rear)—1. Head of column left. 2. Boats right (or left).

**MQA** Form line of ships' flotillas to the front (or rear)—1. Head of column right. 2. Ships' flotillas, column left (or right).

**MQB** Form line of ships' flotillas to the front (or rear)—1. Head of column left. 2. Ships' flotillas, column right (or left).

**MQC** Form column of ships' flotillas to the right—Leading ship's flotilla boats right, rear ships' flotillas forward. (This inverts the order.)

**MQD** Form column of ships' flotillas to the left—Leading ship's flotilla boats left, rear ships' flotillas forward.

\* NOTE.—Applicable to steamer tactical flotillas only.

**Evolutions from Column—Rectangular Method.—Continued.**

LETTERS

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- MQ E** Form column of ships' flotillas to the right—1. Head of column right about, other boats follow. 2. Ships' flotillas, boats left.
- MQ F** Form column of ships' flotillas to the left—1. Head of column left about, other boats follow. 2. Ships' flotillas, boats right.
- MQ G** Form column of ships' flotillas to the front (or rear)—1. Ships' flotillas, column right. 2. Boats left (or right).
- MQ H** Form column of ships' flotillas to the front (or rear)—1. Ships' flotillas, column left. 2. Boats right (or left).
- MQ I**
- MQ J** \*Form line of divisions (or squadrons) to the front (or rear)—1. Head of column right. 2. Divisions head of columns left (or right).
- MQ K** \*Form line of divisions (or squadrons) to the front (or rear)—1. Head of column left. 2. Divisions head of columns right (or left).
- MQ L** \*Form column of divisions (or squadrons) to the right—Van division boats right, rear divisions forward. (This inverts the order.)
- MQ N** \*Form column of divisions (or squadrons) to the left—Van division boats left, rear divisions forward.
- MQ O** \*Form column of divisions (or squadrons) to the right. 1. Head of column right about, other boats follow. 2. Divisions, boats left.
- MQ P** \*Form column of divisions (or squadrons) to the left—1. Head of column left about, other boats follow. 2. Divisions, boats right.
- MQ R** \*Form column of divisions (or squadrons) to the front (or rear)—1. Divisions, head of columns right. 2. Boats left (or right).
- MQ S** \*Form column of divisions (or squadrons) to the front (or rear)—1. Divisions, head of columns left. 2. Boats right (or left).

**Evolutions from Column of Ships' Flotillas, or from Column of Divisions (or Squadrons) with Steamer Tactical Flotilla—Oblique Method.**

- MQ T** Form line—Leading ship's flotilla forward, rear ships' flotillas right oblique—Guide left.

\* NOTE.—Applicable to steamer tactical flotillas only.

**Evolutions from Column of Ships' Flotillas, or from Column of Divisions (or Squadrons) with Steamer Tactical Flotilla—Oblique Method.—Continued.**

## LETTERS

## LETTERS

**M Q U** Form line—Leading ship's flotilla forward, rear ships' flotillas left oblique—Guide right.

**M Q V** Form column—Right boats forward, other boats right oblique (or, signal line of bearing change).

**M Q W** Form column—Left boats forward, other boats left oblique (or, signal line of bearing change).

**M Q X** \*Form line—Van division (or squadron) forward, rear divisions (or squadron) right oblique—Guide left.

**M Q Y** \*Form line—Van division (or squadron) forward, rear divisions (or squadron) left oblique—Guide right.

**Evolutions from Column of Ships' Flotillas, or from Column of Divisions (or Squadrons) with Steamer Tactical Flotilla—Rectangular Method.**

**M Q Z** Form column to the front (or rear)—1. Boats right. 2. Head of columns left (or right).

**M R A** Form column to the front (or rear)—1. Boats left. 2. Head of columns right (or left).

**M R B** Form column to the right on the leading ship's flotilla—Leading ship's flotilla boats right, rear ships' flotillas forward.

**M R C** Form column to the left on the leading ship's flotilla—Leading ship's flotilla boats left, rear ships' flotillas forward.

**M R D** Form line to the front (or rear)—1. Leading ship's flotilla boats right, rear ships' flotillas forward. 2. Boats left.

**M R E** Form line to the front (or rear)—1. Leading ship's flotilla boats left, rear ships' flotillas forward. 2. Boats right.

**M R F**

**M R G** \*Form column to the right on the van division (or squadron)—Van division boats right, rear divisions forward.

**M R H** \*Form column to the left on the van division (or squadron)—Van division boats left, rear divisions forward.

\* NOTE.—Applicable to steamer tactical flotillas only.



**Evolutions from Column of Ships' Flotillas, or from Column of Divisions (or Squadrons) with Steamer Tactical Flotilla—Rectangular Method.—Continued.**

## LETTERS

## LETTERS

**M R I** \*Form line to the front (or rear)—1. Van division (or squadron) boats right, rear divisions forward. 2. Boats left (or right).

**M R J** \*Form line to the front (or rear)—1. Van division (or squadron) boats left, rear divisions forward. 2. Boats right (or left).

**Evolutions from Line of Ships' Flotillas, or from Line of Divisions (or Squadrons) with Steamer Tactical Flotilla—Oblique Method.**

**M R K** Form line—Rear boats right oblique—Guide left. (See signals "Line of Bearing Change" beginning **F M.**)

**M R L** Form line—Rear boats left oblique—Guide right. (See signals, "Line of Bearing Change," beginning **F M.**)

**M R N** Form column—Right ship's flotilla forward, left ships' flotillas right oblique.

**M R O** Form column—Left ship's flotilla forward, right ships' flotillas left oblique.

—— Line of bearing change. (See table beginning **F M.**)

**M R P** \*Form column—Right division (or squadron) forward—Left divisions right oblique.

**M R Q** \*Form column—Left division (or squadron) forward, right divisions left oblique.

**Evolutions from Line of Ships' Flotillas, or from Line of Divisions (or Squadrons) with Steamer Tactical Flotilla—Rectangular Method.**

**M R S** Form column to the front on the right ship's flotilla—1. Ships' flotillas column right. 2. Column left.

**M R T** Form column to the front on the left ship's flotilla—1. Ships' flotillas, column left. 2. Column right.

**M R U** Form line to the front (or rear)—1. Head of columns right. 2. Boats left (or right).

**M R V** Form line to the front (or rear)—1. Head of columns left. 2. Boats right (or left).

\* NOTE.—Applicable to steamer tactical flotillas only.

**Evolutions from Line of Ships' Flotillas, or from Line of Divisions (or Squadrons) with Steamer Tactical Flotilla—Rectangular Method.—Continued.**

## LETTERS

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- MRW** \*Form column to the front on the right division (or squadron)—1. Divisions, column right.  
2. Column left.
- MRX** \*Form column to the front on the left division (or squadron)—1. Divisions, column left. 2. Column right.

**Steam.**

- MRY** Steam, Get up, on steam launches.
- MRZ** Steam, Proceed under.
- MSA** Steam pressure is (pounds indicated by numeral).
- MSB** Steam pressure, Can carry (pounds indicated by numeral).
- MSC**
- MSD** Steam, Keep up.
- MSE** Steam, Ready to proceed under.
- MSF** Fires, Bank.
- MSG** Fires, Haul.
- MSH** Fires, Spread.

**Coal and Water.**

- MSI** Coal, Require.
- MSJ** Water, Require.
- MSK** Water while ashore.
- MSL** Coal and water, Require.
- MSN** Coal and water, Fill with, immediately (or when indicated).
- MSO** Coal and water, Have sufficient, for service ordered (or intended).

**Speed.**

- MS P** Speed, Steam at, as indicated in quarter knots by numeral.
- MS Q** Speed, Can make, as indicated in quarter knots by numeral.
- MS R** Speed, Standard, is as indicated in quarter knots by numeral.
- MS T** Speed, Can make standard.
- MS U** Speed, Make all possible.

\* NOTE.—Applicable to steamer tactical flotillas only.

**Speed.—Continued.**

## LETTERS

## LETTERS

<b>MSV</b>	Speed, Steerage-way, maintain.
<b>MSW</b>	Speed, <i>Slow</i> , steam at.
<b>MSX</b>	Speed, <i>Half</i> , steam at.
<b>MSY</b>	Speed, <i>Standard</i> , steam at.
<b>MSZ</b>	
<b>MTA</b>	Speed, <i>Full</i> , steam at.
<b>MTB</b>	Speed, <i>Reserve</i> , steam at.
<b>MT C</b>	Speed of this or the boat designated is as indicated in quarter knots by numeral.
<b>MTD</b>	Speed, Increase, a little.
<b>MTE</b>	Speed, Decrease, a little.
<b>MTF</b>	Speed, Observe, more carefully.
<b>MTG</b>	Stop.
<b>MTH</b>	Back.

**Distance and Interval.**

<b>MTI</b>	Distance, Take.
<b>MTJ</b>	Distance, Take double.
<b>MTK</b>	Distance, Take half.
<b>MTL</b>	Distance, Take proper.
<b>MTN</b>	Distance, Report, from ship (or boat) indicated.
<b>MT O</b>	Distance in yards is as indicated by numeral.
<b>MT P</b>	Distance, Observe, more carefully.
<b>MTQ</b>	Distance, Scouting, take. (Number of quarter miles may be indicated by numeral.)
<b>MTR</b>	Distance, Take, as indicated in yards by numeral.
<b>MTS</b>	Interval, Close to half.
<b>MTU</b>	Interval, <i>Close</i> . (Number of yards may be indicated by numeral.)
<b>MTV</b>	Interval, <i>Open</i> . (Number of yards may be indicated by numeral.)
<b>MTW</b>	
<b>MTX</b>	Interval, Take proper. (Yards by numeral may follow).
<b>MTY</b>	Interval, Observe, more carefully.
<b>MTZ</b>	Interval.
<b>MUA</b>	Interval, Take scouting. (Number of miles may be indicated by numeral).

**Guide.**

<b>MUB</b>	Guide right.
<b>MUC</b>	Guide left.
<b>MUD</b>	Guide center.
<b>MUE</b>	Guide, Observe, more carefully.

## Helm.

## LETTERS

## LETTERS

<b>MUF</b>	Helm, Port the.
<b>MUG</b>	Helm, Starboard the.
<b>MUH</b>	Helm, Standard, use.
<b>MUI</b>	Helm, Full, use.
<b>MUJ</b>	Helm, <i>Greater, use.</i>
<b>MUK</b>	Helm, <i>Smaller, use.</i>

## Position.

<b>MUL</b>	Position, Take.
<b>MUN</b>	Position, Ship's flotilla-s indicated take, as indicated or previously arranged.
<b>MUO</b>	Position, Can keep, at present speed.
<b>MUP</b>	Position, Boats joining formation will take, <i>astern</i> of designated boat, or flotilla.
<b>MUQ</b>	Position, Ship's flotilla-s take, in order indicated by ships' or divisions' distinguishing-pennants.
<b>MUR</b>	Position in formation, Boats' (or ships' flotillas) indicated will interchange.
<b>MUS</b>	
<b>MUT</b>	Position or station, Resume.
<b>MUV</b>	Position, Get up into.
<b>MUW</b>	Position, Drop back into.

## Exercise under Sail or Oars.

<b>MUX</b>	Assist sails with oars.
<b>MUY</b>	Assist the boat or vessel requiring aid.
<b>MUZ</b>	Bear up in succession number of points indicated.
<b>MVA</b>	Bear up together number of points indicated.
<b>MVB</b>	Boat, Send, alongside this or designated ship.
<b>MVC</b>	Boats, Muster, alongside this or designated ship in prescribed order.
<b>MVD</b>	Boats, All, return to ship-s, or to ship designated.
<b>MVE</b>	Column, Form, by the wind on starboard tack.
<b>MVF</b>	Column, Form, by the wind on port tack.
<b>MVG</b>	Come under the stern.
<b>MVH</b>	Crew-s, Boat-s', pulling badly.
<b>MVI</b>	Come under the bow.
<b>MVJ</b>	Haul by the wind in succession, starboard tack.
<b>MVK</b>	Haul by the wind in succession, port tack.
<b>MVL</b>	Haul by the wind together, starboard tack.
<b>MVN</b>	Haul by the wind together, port tack.
<b>MVO</b>	Haul up in succession number of points indicated.
<b>MVP</b>	

Exercise under Sail or Oars.—*Continued.*

## LETTERS

## LETTERS

<b>M V Q</b>	Haul up together number of points indicated.
<b>M V R</b>	Heave to, starboard tack.
<b>M V S</b>	Heave to, port tack.
<b>M V T</b>	Land—Boats advance and.
<b>M V U</b>	Loaded—Boat indicated is, too deeply.
<b>M V W</b>	Masts, Step.
<b>M V X</b>	Masts, Unstep.
<b>M V Y</b>	Masts, Unstep, before coming alongside.
<b>M V Z</b>	Oars, Boat the.
<b>M W A</b>	Oars, Get out.
<b>M W B</b>	Oars, Get ready.
<b>M W C</b>	Oars, Get up.
<b>M W D</b>	Oars, Give way. (Steamers go ahead.)
<b>M W E</b>	Oars, Give way, stronger. (Steamers go ahead faster.)
<b>M W F</b>	Oars, Lay on. (Steamers stop.)
<b>M W G</b>	Oars, Let fall.
<b>M W H</b>	Oars, Out, and pull.
<b>M W I</b>	Oars, Muffle the.
<b>M W J</b>	Oars, Toss.
<b>M W K</b>	Pass, Flotilla-s will, under the stern of this or designated ship.
<b>M W L</b>	
<b>M W N</b>	Pull easy.
<b>M W O</b>	Pull hard.
<b>M W P</b>	Pulling boats make best of your way to ship-s.
<b>M W Q</b>	Reef sails.
<b>M W R</b>	Reef-s, Shake out.
<b>M W S</b>	Reefed, Sails are badly.
<b>M W T</b>	Rowing of men, Pay attention to.
<b>M W U</b>	Sail, Make.
<b>M W V</b>	Sail, Shorten.
<b>M W X</b>	Sail, Take in.
<b>M W Y</b>	Sail, You are carrying too much.
<b>M W Z</b>	Sails are badly set.
<b>M Y A</b>	Sheets are too flat aft.
<b>M Y B</b>	Steamers increase speed.
<b>M Y C</b>	Steamers reduce speed.
<b>M Y D</b>	Steamers return to your ship-s, or to ship designated.
<b>M Y E</b>	Stern all.
<b>M Y F</b>	Stroke, Keep.
<b>M Y G</b>	Stroke, Take quicker.
<b>M Y H</b>	Stroke, Take longer.
<b>M Y I</b>	

**Exercise under Sail or Oars.—Continued.**

## LETTERS

## LETTERS

<b>MYJ</b>	Tack immediately.
<b>MYK</b>	Tack in succession.
<b>MYL</b>	Tack, Port.
<b>MYN</b>	Tack, Starboard.
<b>MYO</b>	Tack together.
<b>MYP</b>	Try rate of sailing.
<b>MYQ</b>	Water, Hold.
<b>MYR</b>	Wear immediately.
<b>MY S</b>	Wear in succession.
<b>MYT</b>	Wear together.
<b>MYU</b>	Wind changed—Change front to direction indicated.
<b>MYV</b>	Wind, Keep close to the.
<b>MYW</b>	Wind, You are too close to the.

**Exercises with Boats, Flotillas, and Landing-Force.**

<b>MYX</b>	Exercise boats under oars independently.
<b>MYZ</b>	Exercise boats under oars by ships' flotillas.
<b>MZA</b>	Exercise boats under oars by division flotillas.
<b>MZB</b>	Exercise boats under oars by squadron flotillas.

NOTE.—Generally a division flotilla is as large a group as can be successfully maneuvered in tactical exercises. A few maneuvers for a fleet flotilla with brigade or landing-force embarked are covered in the Boat Code.

<b>MZC</b>	Exercise boats with crews of engineer force, under oars, independently.
<b>MZD</b>	Exercise boats with crews of marines, under oars, independently.
<b>MZE</b>	Exercise boats with crews of engineer-force and marines, under oars, independently.
<b>MZF</b>	
<b>MZG</b>	Exercise boats under sail independently.
<b>MZH</b>	Exercise boats under sail by ships' flotilla-s.
<b>MZI</b>	Exercise boats under sail by division flotilla-s.
<b>MZJ</b>	Away landing-force armed and equipped for service.
<b>MZK</b>	Away landing-force armed and equipped for distant service.
<b>MZL</b>	Away landing-force armed and equipped for cutting out.
<b>MZN</b>	Away landing-force armed and equipped for opposed landing.
<b>MZO</b>	Away landing-force armed and equipped for un-opposed landing.
<b>MZP</b>	Away landing-force lightly equipped for parade.



**Exercises with Boats, Flotillas, and Landing-Force.—Continued.**

LETTERS

LETTERS

- M Z Q** Away landing-force lightly equipped for drill ashore.
- M Z R** Away landing-force fully equipped for drill ashore.
- M Z S** Away combatant landing-force for emergency. (See Boat-Book, Art. 72.)
- M Z T** Away steamers equipped for steamer tactical drill, to form where indicated.
- M Z U** Battalion or battalions, Land (or send where designated.)
- M Z V** Battalion-s of seamen, Land (or send where designated.)
- M Z W** Battalion-s of marines, Land (or send where designated).
- M Z X** Brigade, Land.
- M Z Y** Brigade of seamen, Land.
- N A B** Brigade of marines, Land.
- N A C** Detachment-s, Land the marine.
- N A D**
- N A E** Detachment-s, Send the marine, to the ship or place designated.
- N A F** Embark, Marines.
- N A G** Embark, Seamen.
- N A H** Embark the landing-force.
- N A I** Embark the battalion-s of seamen.
- N A J** Embark the battalion-s of marines.
- N A K** Embark the marine detachments.
- N A L** Embark the brigade.
- N A M** Embark, Send boats to, the brigade.
- N A O** Embark, Send boats to, the landing-force.
- N A P** Embark the brigade or landing-force in the order in which it landed.
- N A Q** Embark the brigade or landing-force in the inverse order in which it landed.
- N A R** Flotilla-s stand into landing and disembark in natural order.
- N A S** Flotilla-s stand into landing and disembark in inverted order.
- N A T** Flotilla-s stand into landing and disembark in the order indicated by distinguishing-flags or pennants.
- N A U** Flotilla-s stand into landing and embark landing-force (or brigade).
- N A V** Flotilla-s stand into landing and report to beach-master.

Exercises with Boats, Flotillas, and Landing-Force.—*Continued.*

## LETTERS

## LETTERS

- N A W** Flotilla-s keep clear of landing until preceding or indicated flotilla-s has embarked.
- N A X** Flotilla-s keep clear of landing until preceding or indicated flotilla-s has disembarked.
- N A Y** Flotilla-s return to their ships or ships indicated.
- N A Z**
- N B A** Send boats back to ship-s.
- N B C** Send boats for landing-force (or force ashore).
- N B D** Ships' flotilla commander-s, take charge.
- N B E** Division flotilla commander-s, take charge.
- N B F** Squadron flotilla commander-s, take charge.
- N B G** Brigade (or landing-force) commander, take charge.
- N B H** Senior officer in flotilla, take charge.

## Target Practice (Gun and Torpedo).

- N B I** After last run.
- N B J** After this run.
- N B K** After next run.
- N B L** After visiting target-s.
- N B M** Run before last.
- N B O** Last run.
- N B P** Alongside, Come.
- N B Q** Alongside, Come for relief crews now or when indicated.
- N B R** Alongside, Come with repair boat, now or when indicated.
- N B S** Alongside, Send towing steamer, now or when indicated.
- N B T** As we pass near target.
- N B U** As we pass near you.
- N B V** Before visiting targets.
- N B W**
- N B X** Boats, Get ready for hoisting in.
- N B Y** Buoy, Pick up the, adrift, now or when indicated.
- N B Z** Buoy (or buoyed) position where torpedo sank.
- N C A** Buoy, Replace flag or lantern on the, indicated, now or when indicated.
- N C B** Buoy-s in place.
- N C D** Buoy-s, Replace.
- N C E** Follow ship on range, then follow torpedo.
- N C F** Hail, Come within, now or when indicated.
- N C G** Hit, The last torpedo fired.
- N C H** Hits (number indicated by numeral).

**Target Practice (Gun and Torpedo).—Continued.**

LETTERS

LETTERS

- N C I** Hits, How many, on target-s indicated by numeral-s.
- N C J** Hits, How many, by each caliber.
- N C K** Hits, by calibers, beginning with largest, indicated by numerals.
- N C L** Hits, Re-count, on target-s indicated by numeral-s.
- N C M** Hits on target No. 1 (number indicated by numeral-s).
- N C O** Hits on target No. 2 (number indicated by numeral-s).
- N C P** Hits on target No. 3 (number indicated by numeral-s).
- N C Q** Hits on target No. 4 (number indicated by numeral-s).
- N C R** Hits on boat target (number indicated by numeral-s).
- N C S** Hits, Examine edges of target-s indicated by numeral-s carefully for.
- N C T**
- N C U** Hits, Paint out, on all or target-s indicated by numeral-s.
- N C V** Lie in rear of firing-line.
- N C W** Lie in rear of firing-line, then follow torpedo.
- N C X** Lie to right of targets (distance in yards may be indicated).
- N C Y** Lie to left of targets (distance in yards may be indicated).
- N C Z** Lie further from targets.
- N D A** Mail, Get, from guard or mail-boat.
- N D B** Poles, Require.
- N D C** Pole-s, Erect, on target-s requiring, now or when indicated.
- N D E** Pole-s, I have number of, indicated by numeral-s.
- N D F** Raft-s, How long will it take to repair.
- N D G** Raft-s, Report condition of.
- N D H** Raft-s, Dismantle the, indicated by numeral-s, now or when indicated.
- N D I** Raft-s, indicated by numeral-s, require-s repair.
- N D J** Raft-s can be repaired in minutes indicated by numerals.
- N D K** Raft indicated by numeral is beyond repair with my facilities.
- N D L** Relief-crew, Require, for steamer.

Target Practice (Gun and Torpedo).—*Continued.*

## LETTERS

## LETTERS

- NDM** Relief-crew, Require, for repair boat.  
**NDO** Relief-steamer, Require.  
**NDP** Relief repair-boat, Require.  
**NDQ**  
**NDR** Repair raft-s indicated by numeral-s, now or when indicated.  
**NDS** Repairs are completed.  
**NDT** Return to ship after taking down screens.  
**NDU** Return to ship leaving screens set.  
**NDV** Return to ship leaving screens furled.  
**NDW** Return to ship after shifting screens as indicated.  
**NDX** Target umpire, come on board now or when indicated.  
**NDY** Target-s, Keep clear of, or gun-fire.  
**NDZ** Target-s, Visit.  
**NEA** Target-s, Set, parallel to firing-line, those indicated.  
**NEB** Target-s, Mark, indicated by numeral-s.  
**NEC** Target-s, Repair the.  
**NED** Target-s, How long to repair the.  
**NEF** Torpedo breached at about yards (indicated by numeral) from ship.  
**NEG** Torpedo-es, Bring, alongside.  
**NEH** Torpedo came up but has been lost sight of.  
**NEI** Torpedo curved to left.  
**NEJ** Torpedo curved to right.  
**NEK** Torpedo did run.  
**NEL** Torpedo, Follow the.  
**NEM**  
**NEO** Torpedo has sunk.  
**NEP** Torpedo is beyond you.  
**NEQ** Torpedo is this side of you.  
**NER** Torpedo is to left of you.  
**NES** Torpedo is to right of you.  
**NET** Torpedo is located.  
**NEU** Torpedo passed ahead of target (yards may be indicated by numeral).  
**NEV** Torpedo passed astern of target (yards may be indicated by numeral).  
**NEW** Torpedo range, Keep clear of the.  
**NEX** Torpedo range, Pick up the, and return to ship.  
**NEY** Torpedo range, Take position on the, about yards indicated from firing-point.

**Target Practice (Gun and Torpedo).—Continued.**

LETTERS

LETTERS

- NEZ** Torpedo recover-ed.
- NFA** Torpedo, Search for, between ship and target, or in direction indicated from you.
- NFB** Torpedo, Sweep for.
- NFC** Torpedo, Where is.
- NFD** Torpedo, You are heading for.
- NFE** Torpedoes, How many, are recovered.
- NFG** Wrong, Is anything.
- NFH** Screen-s, Bring, to ship from target-s indicated by numeral-s.
- NFI** Screen-s, Furl, on target-s indicated by numeral-s.
- NFJ**
- NFK** Screens, Require more, for caliber indicated by numeral-s.
- NFL** Screen-s, Set, on target-s indicated by numeral-s.
- NFM** Screen-s, Set, flat on target-s indicated by numeral-s.
- NFO** Screen-s, Set, for caliber indicated by numeral-s.
- NFP** Screen-s, Set, for night-practice on target-s indicated by numeral-s.
- NFQ** Screen-s, Set, for battle practice.
- NFR** Screen-s, Set, higher on target-s indicated by numeral-s.
- NFS** Screen-s, Set, lower on target-s indicated by numeral-s.
- NFT** Screen-s, Set, properly on target-s indicated by numeral-s.
- NFU** Screen-s, Shift, on target-s indicated by numeral-s.
- NFV** Screen-s, Take down, on target-s indicated by numeral-s.
- NFW** Screen-s, Take down, on target-s indicated by numeral-s, and hold for inspection.
- NFX** Screen-s, 12-inch, set on target-s indicated by numeral-s.
- NFY** Screen-s, 8-inch, set on target-s indicated by numeral-s.
- NFZ** Screen-s, 7-inch, set on target-s indicated by numeral-s.
- NGA** Screen-s, 6-inch, set on target-s indicated by numeral-s.

**Target Practice (Gun and Torpedo).—Continued.**

## LETTERS

## LETTERS

- NG B** Screen-s, 5-inch, set on target-s indicated by numeral-s.
- NG C** Screen-s, 4-inch, set on target-s indicated by numeral-s.
- NG D** Screen-s, 3-inch, set on target-s indicated by numeral-s.
- NG E** Screen-s, 6-pounder, set on target-s indicated by numeral-s.
- NG F**
- NG H** Screen-s, 3-pounder, set on target-s indicated by numeral-s.
- NG I** Screen-s, Boat target, set on target-s indicated by numeral-s.

**Gunnery.**

- NG J** Ammunition, Do not waste.
- NG K** Artillery, Exercise, firing at target (or mark).
- NG L** Artillery, Exercise, with blank cartridges.
- NG M** Artillery, Land the.
- NG O** Artillery, Embark the.
- NG P** Artillery cover the landing.
- NG Q** Artillery boats return to their ships or to ships designated.
- NG R** Artillery boats, Arm and equip for service.
- NG S** Boats with guns, leave the formation and form separately.
- NG T** Boats with machine-guns, leave the formation and form separately.
- NG U** Boats without guns, leave the formation and form separately.
- NG V** Boats without guns, return to their ships.
- NG W** Fire, Open, (under the negative "cease firing").
- NG X** Fire, Open, with shell.
- NG Y** Fire, Open, with shrapnel.
- NG Z** Firing, Commence, with artillery.
- NH A** Firing, Commence, with machine-guns.
- NH B** Firing, Commence, with small-arms.
- NH C**
- NH D** Firing, Cease, with artillery.
- NH E** Firing, Cease, with machine-guns and small-arms.
- Close the target or enemy.....
- NH F** Increase distance from target or enemy.
- NH G** Projectiles are falling beyond target or enemy (yards may be indicated).

**OBI**



Gunnery.—*Continued.*

LETTERS

LETTERS

<b>N H I</b>	Projectiles are falling short of target or enemy (yards may be indicated).
<b>N H J</b>	Projectiles are falling to right of target or enemy (yards may be indicated).
<b>N H K</b>	Projectiles are falling to left of target or enemy (yards may be indicated).
<b>N H L</b>	Projectiles are bursting short of target or enemy (yards may be indicated).
<b>N H M</b>	Projectiles are bursting beyond target or enemy (yards may be indicated).
<b>N H O</b>	Projectiles are bursting to right of target or enemy (yards may be indicated).
<b>N H P</b>	Projectiles are bursting to left of target or enemy (yards may be indicated).
<b>N H Q</b>	Range is short (yards may be indicated).
<b>N H R</b>	Range is over (yards may be indicated).
<b>N H S</b>	Range is about right.
<b>N H T</b>	Report fall of projectiles.
<b>N H U</b>	Shell the beach.
<b>N H V</b>	Shell the woods.
<b>N H W</b>	Shell the rifle-pits.
	Shell, Open fire with.....
	Shrapnel, Open fire with.....
<b>N H X</b>	Shell (or shrapnel) burst about right.

**N G X**  
**N G Y**

**For Bore-Sighting and Sub-Caliber Practice.**

<b>N H Y</b>	Anchor ahead.
<b>N H Z</b>	
<b>N I A</b>	Anchor starboard bow.
<b>N I B</b>	Anchor port bow.
<b>N I C</b>	Anchor starboard beam.
<b>N I D</b>	Anchor port beam.
<b>N I E</b>	Anchor starboard quarter.
<b>N I F</b>	Anchor port quarter.
<b>N I G</b>	Anchor astern.
<b>N I H</b>	Steam on starboard side.
<b>N I J</b>	Steam on port side.
<b>N I K</b>	Go slower.
<b>N I L</b>	Go faster.
<b>N I M</b>	Increase range.
<b>N I O</b>	Decrease range.
<b>N I P</b>	Make shorter run.
<b>N I Q</b>	Make longer run.

## Towing.

## LETTERS

## LETTERS

- N I R** Boat-s indicated rectify length of tow-line.  
**N I S** Boats in tow, cast off tow-lines, beginning with rear boat-s.  
**N I T** Boats of each ship make fast to their steamers, in proper order, ready for towing.  
**N I U** Boats, Steamers tow, to their respective ships.  
**N I V** Boats, Steamers tow, of their respective ships.  
**N I W**  
**N I X** Take the boat, lighter, or vessel indicated, in tow.  
**N I Y** Tow the boat-s or vessel to the position indicated (or desired).  
**N I Z** Tow-s, Straighten out the.  
**N J A** Tow-s, Cast off the.  
**N J B** Tow-s, Stop and cast off, preserving formation.  
**N J C** Tow-lines, Length of, number of fathoms indicated.  
**N J D** Send boat-s to tow or assist the boat or vessel requiring aid.  
**N J E** Use two steamers for towing.

## Accident, Breakdown, Damage.

- N J F** Report the nature of your accident, breakdown or damage.  
**N J G** Hours to repair damage indicate-d by numeral-s.  
**N J H** Repairs, Assistance require in making.  
**N J I** Repairs, Unable to proceed without.  
**N J K** Boat is stove.  
**N J L** Boat is leaking badly.  
**N J M** Boat is disabled.  
**N J O** Boat is sinking.  
**N J P** Engine is disabled.  
**N J Q** Propeller is foul.  
**N J R** Steering-gear out of order.

## Boat Racing.

- N J S** Barges.  
**N J T**  
**N J U** Cutters.  
**N J V** Dinghies.  
**N J W** Gigs.  
**N J X** Sailing-launches.  
**N J Y** Steamers.  
**N J Z** Whale-boats.

Boat Racing.—*Continued.*

## LETTERS

## LETTERS

NKA	Form line for race.
NKB	Form line for race as soon as race indicated has started.
NKC	Ready for race.
NKD	Give way together.
NKE	You are in the way of the boats about to start race.
NKF	Get into position for starting.
NKG	Tell the vessel-s which is on the course to please keep clear.
NKH	Combination race.
NKI	Pulling race.
NKJ	Rudderless race.
NKL	Sailing race.
NKM	Sailing race with steamers.
NKO	Steamer race.
NKP	As soon as you cross the line, make sail and sail over the course, or the course indicated by numeral.
NKQ	
NKR	Protests to make.
NKS	Come within hail and record protests (if any).
NKT	Boat (or vessel) wins race (indicate-d by distinguishing-pennant and number).
NKU	Send to vessel indicated and receive cup (or trophy).
NKV	Boat-s indicated has been disqualified.
NKW	Order of boats at finish indicate-d by distinguishing-pennants.
NKX	
NKY	
NKZ	

## Miscellaneous Signals and Alphabetical Reference.

NLA	Abandon the chase.
NLB	Abandon the prize.
NLC	Abandon the search.
NLD	Abandon duty or service.
NLE	Abandon the wreck.
NLF	Abandon and destroy the place.
NLG	Abandoned, The prize has been.
NLH	Abandoned, The enemy has, his intrenchments.
NLI	Abandoned, The enemy has, his artillery.
NLJ	Abandon present position or station.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

## LETTERS

<b>N L K</b>	Abandon the harbor or place now occupied.	
<b>N L M</b>		
<b>N L O</b>	Accept the enemy's terms.	
<b>N L P</b>	Access, This (or the) place is easy of.	
<b>N L Q</b>	Accident, Have had.	
	Accident, Report the nature of your, break-down, or damage.....	<b>N J F</b>
<b>N L R</b>	Accompany this ship or the one designated.	
<b>N L S</b>	Accompany the torpedo-boats or vessels.	
<b>N L T</b>	Accompany the submarines.	
<b>N L U</b>	Accordance, Act in strict, with previous orders.	
	Action, Plan of (see plan).	
<b>N L V</b>	Action, Ready for.	
<b>N L W</b>	Action, Commence.	
<b>N L X</b>	Action, Continue.	
<b>N L Y</b>	Action, Discontinue.	
<b>N L Z</b>	Action, Avoid.	
<b>N M A</b>	Action, Go closer into.	
<b>N M B</b>	Act on the defensive.	
<b>N M C</b>	Act promptly.	
<b>N M D</b>	Adrift, Boat-s is (are).	
	Adrift, Pick up the buoy, now or when indicated	<b>N B Y</b>
<b>N M E</b>	Advance.	
<b>N M F</b>	Advance, Reserves.	
<b>N M G</b>	Advance, Can.	
<b>N M H</b>	Advance cautiously.	
<b>N M I</b>		
<b>N M J</b>	Advance more.	
<b>N M K</b>	Advance, Do not, without orders.	
<b>N M L</b>	Advance in the prescribed (or indicated) order.	
<b>N M O</b>	Advance in accordance with prescribed plan.	
<b>N M P</b>	Advance, Boats will, and land, under protection of the guns of the fleet.	
<b>N M Q</b>	Advancing, Enemy is.	
<b>N M R</b>	Advancing, Reserves are.	
<b>N M S</b>	Advantage, We have the.	
<b>N M T</b>	Advantage, Enemy has the.	
	Affairs, Ascertain the condition of, on shore....	<b>N R Q</b>
<b>N M U</b>	Afloat, I am.	
<b>N M V</b>	Afloat, Get all the vessels and boats.	
	After this run.....	<b>N B J</b>
	After next run.....	<b>N B K</b>
	After last run.....	<b>N B I</b>
	After visiting targets.....	<b>N B L</b>
<b>N M W</b>	Aground, I am.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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<b>NMX</b>	Aground, The lighter (or vessel) is.	
<b>NMY</b>	Aground, You or the vessel indicated is in danger of running.	
<b>NMZ</b>	Ahead, Go.	
<b>NOA</b>	Ahead, Keep.	
<b>NOB</b>	Ahead, Keep more.	
<b>NOC</b>	Ahead, Too far.	
<b>NOD</b>	Ahead, A long way.	
<b>NOE</b>	Ahead, Keep lookout.	
<b>NOF</b>		
<b>NOG</b>	Ahead, When will you be ready to go.	
<b>NOH</b>	Ahead, Ready to go, now or when indicated.	
	Ahead, Torpedo passed, of target (yards may be indicated by numerals).....	<b>NEU</b>
<b>NOI</b>	Alongside, Go.	
	Alongside, Come .....	<b>NBP</b>
	Alongside, Come, for relief-crews, now or when indicated .....	<b>NBQ</b>
	Alongside, Come, with repair-boat, now or when indicated .....	<b>NBR</b>
	Alongside, Muster boats, this or designated ship in prescribed order.....	<b>MVC</b>
	Alongside, Send towing-steamer, now or when indicated .....	<b>NBS</b>
	Alongside, Send boat, this or designated ship..	<b>MVB</b>
	Ammunition, Do not waste.....	<b>NGJ</b>
<b>NOJ</b>	Ammunition, all expended.	
<b>NOK</b>	Ammunition, Can spare.	
<b>NOL</b>	Ammunition, Have enough.	
<b>NOM</b>	Ammunition is damaged.	
<b>NOP</b>	Ammunition, What is required.	
<b>NOQ</b>	Ammunition, Need, for revolvers.	
<b>NOR</b>	Ammunition, Need, for rifles.	
<b>NOS</b>	Ammunition, Need, for artillery.	
<b>NOT</b>	Ammunition, Need, for 1-pounders.	
<b>NOU</b>	Ammunition, Need, for machine-guns.	
<b>NOV</b>	Ammunition, Troops on shore are in need of.	
<b>NOW</b>	Ammunition, Boats are in need of.	
<b>NOX</b>	Ammunition is nearly expended.	
<b>NOY</b>	Ammunition, The garrison needs.	
<b>NOZ</b>	Ammunition, Will send without unnecessary delay.	
<b>NPA</b>	Ammunition, Supply force on shore with such, as can be spared.	
<b>NPB</b>	Anchor.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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<b>N P C</b>		
<b>N P D</b>	Anchor at.	
	Anchor ahead .....	<b>N H Y</b>
	Anchor astern .....	<b>N I G</b>
	Anchor port beam.....	<b>N I D</b>
	Anchor starboard beam.....	<b>N I C</b>
	Anchor port bow.....	<b>N I B</b>
	Anchor starboard bow.....	<b>N I A</b>
	Anchor port quarter.....	<b>N I F</b>
	Anchor starboard quarter.....	<b>N I E</b>
<b>N P E</b>	Anchor, Must.	
<b>N P F</b>	Anchor, Weigh.	
<b>N P G</b>	Anchor, Drag for.	
<b>N P H</b>	Anchor, Sweep for.	
<b>N P I</b>	Anchor, Endeavor to.	
<b>N P J</b>	Anchor, Going to.	
<b>N P K</b>	Anchor until morning.	
<b>N P L</b>	Anchor, Lost an.	
<b>N P M</b>	Anchor at discretion.	
<b>N P O</b>	Anchor by the stern.	
<b>N P Q</b>	Anchor close inshore.	
<b>N P R</b>	Anchor, Have you an.	
<b>N P S</b>	Anchor head and stern.	
<b>N P T</b>	Anchor at the mouth of the river.	
<b>N P U</b>	Anchor as most convenient.	
<b>N P V</b>	Anchor above the town or place.	
<b>N P W</b>	Anchor, Can spare an.	
<b>N P X</b>	Anchor in present formation.	
<b>N P Y</b>	Anchor in berths previously assigned.	
<b>N P Z</b>		
<b>N Q A</b>	Anchor, In want of an.	
<b>N Q B</b>	Anchor on line of bearing indicated by compass-signal.	
<b>N Q C</b>	Anchored, When you, he or they are.	
<b>N Q D</b>	Anchorage, Have knowledge of the.	
<b>N Q E</b>	Anchorage, Leave present, before dark.	
<b>N Q F</b>	Anchorage, Leave present, after dark.	
<b>N Q G</b>	Anchorage, Make the best of your way to.	
<b>N Q H</b>	Anchorage is safe or good anchorage for ships.	
<b>N Q I</b>	Anchorage, Cut out and bring off vessels at the.	
<b>N Q J</b>	Anchorage, Examine the, carefully by soundings, and place boats or marks to guide safely in.	
<b>N Q K</b>	Answer, Wait for.	
<b>N Q L</b>	Answer by semaphore.	



## Miscellaneous Signals and Alphabetical Reference.—Continued.

## LETTERS

## LETTERS

<b>N Q M</b>	Answer by wig-wag.	
<b>N Q O</b>	Answer by wig-wag or semaphore.	
<b>N Q P</b>	Answer has been received.	
<b>N Q R</b>	Answer signals promptly.	
<b>N Q S</b>	Approached, The shore may be, without risk.	
<b>N Q T</b>	Approach, Obstructions are so placed as to prevent.	
<b>N Q U</b>	Approach as near as safety permits.	
<b>N Q V</b>	Armistice, Refuse.	
<b>N Q W</b>		
<b>N Q X</b>	Armistice has terminated.	
<b>N Q Y</b>	Armed, Inhabitants are reported to be.	
<b>N Q Z</b>	Armory, Capture and hold the.	
<b>N R A</b>	Armory, Send a force to protect the.	
<b>N R B</b>	Arms are in good condition.	
<b>N R C</b>	Army, Assist the.	
<b>N R D</b>	Army, Co-operate with.	
<b>N R E</b>	Army, Our, is retiring.	
<b>N R F</b>	Army, Cover retreat of our.	
<b>N R G</b>	Army, Cover left flank of our.	
<b>N R H</b>	Army, Cover right flank of our.	
<b>N R I</b>	Army, Apply to, for assistance.	
<b>N R J</b>	Arrangements are perfected.	
<b>N R K</b>	Arrest or stop the vessel about to leave.	
<b>N R L</b>	Arrest the rioters or disturbers of the peace.	
<b>N R M</b>	Arsenal, Destroy the.	
<b>N R O</b>	Articles, Procure necessary.	
	Artillery, Land the.....	<b>N G M</b>
	Artillery, Embark the .....	<b>N G O</b>
	Artillery, Commence firing with.....	<b>N G Z</b>
	Artillery cover the landing.....	<b>N G P</b>
	Artillery, Exercise, firing at target (or mark)..	<b>N G K</b>
	Artillery, Exercise, with blank cartridges.....	<b>N G L</b>
	Artillery boats, Arm and equip, for service....	<b>N G R</b>
	Artillery boats return to their ships, or to ships designated .....	<b>N G Q</b>
<b>N R P</b>	Artillery boats go ahead in prescribed formation.	
	As soon as you cross the line make sail and sail over the course or the course indicated by numeral .....	<b>N K P</b>
	As we pass near target.....	<b>N B T</b>
	As we pass near you.....	<b>N B U</b>
<b>N R Q</b>	Ascertain the condition of affairs on shore.	
<b>N R S</b>	Ascertain, if possible, the enemy's design and strength.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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**N R T****N R U** Ascertain the character of the strange or indicated vessel-s, where from, where bound, etc.**N R V** Ashore, Go, or send, for stewards, now or when indicated.**N R W** Ashore, Go, or send, for provisions, now or when indicated.**N R X** Ashore, Go, or send, for liberty party, now or when indicated.**N R Y** Ashore, Go, or send, for officers, now or when indicated.**N R Z** Ashore, Go, or send, for mail orderly, now or when indicated.**N S A** Ashore, Have men, who cannot reach us on account of weather.**N S B** Assault.**N S C** Assault is practicable.**N S D** Assault, if practicable.

Assist the army.....

**N R C**

Assist sails with oars.....

**M U X****N S E** Assist troops to land.**N S F** Assist the attacking party.**N S G** Assist in bringing off wounded.

Assist the boat or vessel requiring aid.....

**M U Y**

Assistance, Require, in making repairs.....

**N J H****N S H** Assist the people overboard, or those on the wreck.

Assist, Send boats to tow or, the boat or vessel requiring aid .....

**N J D****N S I** Assistance, Can give.**N S J** Assistance, Decline all.**N S K** Assistance, Need medical.**N S L** Assistance, Additional, required.**N S M** Assistance, Apply to the nearest vessel for.

Assistance, Apply to army for.....

**N R I****N S O** Assistance, Need immediate.**N S P****N S Q** Assistance, Specify nature of, required.**N S R** Assistance, Will send, at hour indicated.**N S T** Assistance, Have (or has) given every.**N S U** Assistance, Will send, when tide changes.**N S V** Assistance, Apply to civil authorities for, if necessary.**N S W** Astern, Go.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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Astern, Torpedo passed, of target (yards may be indicated by numeral).....

N E V

**N S X** Attack, Begin the.

**N S Y** Attack has begun.

**N S Z** Attack, Postpone the.

**N T A** Attack enemy's flotilla-s.

**N T B** Attack the enemy's flank.

**N T C** Attack the enemy's center.

**N T D** Attack the enemy's rear.

**N T E** Attack boom (or obstruction) and destroy or remove it.

**N T F** Attack the enemy's town or settlement.

**N T G** Attack, Intend to, at time indicated.

**N T H** Attack is imminent; look out (direction indicated).

**N T I** Attack, Combined, will be made at time indicated.

**N T J** Attack, Combined, is postponed until time indicated.

**N T K** Attack, Mean to, the enemy as soon as possible, or when indicated.

**N T L** Attack, Flotilla will, as soon as it gets within good range.

**N T M**

**N T O** Attacked, Have been.

**N T P** Attacked, Our people on shore are or have been.

**N T Q** Attempt, Make the.

**N T R** Attempts have been successful.

**N T S** Attention, Give more, to signals.

Attention, Pay, to rowing of men.....

M W T

**N T U** Attention, Pay great, to motions of senior officer during night.

**N T V** Authorities, Consult with the.

**N T W** Authorities, Seek an interview with the.

**N T X** Avail yourself of all proper means and obtain information of the enemy's strength and movements.

**N T Y** Avoid conflict if possible.

**N T Z** Await orders.

**N U A** Await orders until date and hour indicated.

Back .....

M T H

**N U B** Back, Drop.

Badly done .....

O H Z

**N U C**

**N U D** Badly, Your boats are handled.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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<b>NUE</b>	Baggage, Land the.	
<b>NUF</b>	Baggage, Land without.	
<b>NUG</b>	Baggage, Send all the, on board.	
<b>NUH</b>	Baggage, Send, to the rear.	
<b>NUI</b>		
<b>NUJ</b>	Baggage trains, Destroy the enemy's.	
<b>NUK</b>	Baggage, Leave heavy, on board.	
<b>NUL</b>	Baggage, Send all, that can be dispensed with on board.	
<b>NUM</b>	Balloons, Fire at.	
<b>NUO</b>	Balloons, See, in direction indicated.	
<b>NUP</b>	Bar is safe to cross.	
<b>NUQ</b>	Bar is dangerous at present.	
<b>NUR</b>	Bar, Examine the, and report results. Barges .....	<b>NJS</b>
<b>NUS</b>	Barge, Send, to boat landing.	
<b>NUT</b>	Barge, Send, to this or vessel indicated.	
<b>NUV</b>	Barometer is falling rapidly.	
<b>NUW</b>	Barricades, Erect.	
<b>NUX</b>	Barricaded, Streets are.	
<b>NUY</b>	Barricades, Destroy the. Battalion-s of seamen, Land (or send where indicated) .....	<b>MZV</b>
	Battalion-s, Land or send, where indicated....	<b>MZU</b>
	Battalion-s of marines, Land (or send where indicated) .....	<b>MZW</b>
<b>NUZ</b>	Battery-ies, Under the.	
<b>NVA</b>	Battery-ies, The, can be used.	
<b>NVB</b>	Batteries, There are.	
<b>NVC</b>	Batteries, Run by the.	
<b>NVD</b>	Batteries, Look out for the.	
<b>NVE</b>	Batteries, Keep possession of.	
<b>NVF</b>	Batteries, What state do, appear to be in.	
<b>NVG</b>	Batteries, The enemy is throwing up. Battle practice, Set screens for.....	<b>NFQ</b>
<b>NVH</b>	Bayonets, Need.	
<b>NVI</b>	Bayou is closed at its mouth.	
<b>NVJ</b>	Bayou is navigable for boats.	
<b>NVK</b>	Bayou is navigable for small steamers.	
<b>NVL</b>	Bayou has average depth indicated in feet. Beach, Shell the.....	<b>NHU</b>
<b>NVM</b>	Beach, Advance, open fire, and clear the.	
<b>NVO</b>	Beach-master, Boats report to, for directions.	
<b>NVP</b>	Beach-master, keep or get boats afloat.	
<b>NVQ</b>	Beach-master, prepare boats for embarkation,	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

LETTERS

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<b>N V R</b>	Beach-master requires assistance.	
	Beach-master, Flotillas stand into landing and report to .....	<b>N A V</b>
	Beam, Port .....	<b>M N W</b>
	Beam, Starboard .....	<b>M N X</b>
<b>N V S</b>	Beam, Aft the.	
<b>N V T</b>	Beam, Forward of the.	
	Bear up together number of points indicated..	<b>M V A</b>
	Bear up in succession number of points indicated .....	<b>M U Z</b>
<b>N V U</b>	Bear, How did (does) she or it.	
<b>N V W</b>	Bears, She, or it, or bore (indicate by compass-signal).	
<b>N V X</b>	Bearing, The enemy's, is that indicated.	
<b>N V Y</b>	Bearing, Proceed on, indicated to sound and lookout.	
	Before visiting targets.....	<b>N B V</b>
<b>N V Z</b>	Before the wind, Run or steer.	
<b>N W A</b>	Best, Do the, possible.	
<b>N W B</b>	Better, Can do.	
	Beyond, Torpedo is, you.....	<b>N E P</b>
	Beyond, Projectiles are bursting, target or enemy (yards may be indicated).....	<b>N H M</b>
	Beyond, Projectiles are falling, target or enemy (yards may be indicated).....	<b>N H G</b>
<b>N W C</b>	Blankets, Need.	
	Blank cartridges, Exercise artillery with.....	<b>N G L</b>
<b>N W D</b>	Blockade, Raise the.	
<b>N W E</b>	Blockade the entrance.	
<b>N W F</b>	Blockade, Have or has broken.	
<b>N W G</b>	Blockade is effective.	
<b>N W H</b>	Blockade the port, the place or coast.	
<b>N W I</b>	Blockading, Is or are.	
<b>N W J</b>	Blow up or remove the obstructions.	
<b>N W K</b>	Board, Is on.	
<b>N W L</b>	Board the wreck.	
<b>N W M</b>	Board the enemy.	
<b>N W O</b>	Board, Come on.	
<b>N W P</b>	Board the mail-vessel.	
<b>N W Q</b>	Board the vessel or vessels indicated.	
<b>N W R</b>	Board the flag-of-truce vessel.	
<b>N W S</b>	Board, Bring master on, with papers.	
<b>N W T</b>	Board the incoming vessel.	
<b>N W U</b>	Board, Have or has on.	
<b>N W V</b>	Board, All must be on, by hour indicated.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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<b>N W X</b>	Boat-book, Require.	
<b>N W Y</b>	Boat-signals, Use.	
<b>N W Z</b>	Boat, Will send a.	
<b>N Y A</b>	Boat-book, Have you a.	
	Boats left about.....	<b>M O B</b>
	Boats right about.....	<b>M O A</b>
	Boats, Send, back to ships.....	<b>N B A</b>
	Boats, Send, to embark the brigade.....	<b>N A M</b>
	Boats, Send, to embark the landing-force.....	<b>N A O</b>
	Boats, Send, for landing-force (or force ashore)	<b>N B C</b>
	Boat-s crew-s pulling badly.....	<b>M V H</b>
	Boat, Send, alongside this or designated ship..	<b>M V B</b>
<b>N Y B</b>	Boat-s is (are) swamped.	
<b>N Y C</b>	Boats, Do not risk, in surf.	
<b>N Y D</b>	Boats may communicate.	
<b>N Y E</b>	Boats return to rendezvous.	
<b>N Y F</b>	Boats, Have, clear of landing or beach.	
	Boats with guns leave the formation, and form separately .....	<b>N G S</b>
<b>N Y G</b>	Boats, Exercise, under sail by squadron flotillas.	
	Boats, Exercise, under sail by division flotillas..	<b>M Z I</b>
	Boats, Exercise, under oars, by division flotillas	<b>M Z A</b>
	Boats, Exercise, under sail by ships' flotillas..	<b>M Z H</b>
	Boats, Exercise, under sail independently.....	<b>M Z G</b>
	Boats, Exercise, under oars by ships' flotillas..	<b>M Y Z</b>
	Boats Exercise, under oars independently.....	<b>M Y X</b>
<b>N Y H</b>	Boats, Search the (may be indicated).	
	Boats left (eight points unless otherwise indi- cated) .....	<b>M N Z</b>
	Boats right (eight points unless otherwise indi- cated) .....	<b>M N Y</b>
	Boats, All, return to ship-s, or to ship designated	<b>M V D</b>
	Boats, Muster, alongside this or designated ship in prescribed order.....	<b>M V C</b>
	Boats without guns return to their ships.....	<b>N G V</b>
<b>N Y I</b>	Boats unfit for further service until hoisted aboard.	
	Boats, Get ready for hoisting in.....	<b>N B X</b>
	Boats indicated rectify length of tow-line.....	<b>N I R</b>
	Boats with machine-guns leave the formation and form separately.....	<b>N G T</b>
	Boats without guns leave the formation and form separately .....	<b>N G U</b>
<b>N Y J</b>	Boom is made of spars.	
<b>N Y K</b>	Boom is made of chain.	



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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	Bow, Come under the.....	<b>M V I</b>
	Breakdown .....	<b>N</b>
<b>N Y L</b>	Breakers, Look out for.	
<b>N Y M</b>	Breakers, Need water.	
<b>N Y O</b>	Bridge, Destroy the.	
<b>N Y P</b>	Bridge, Guard the.	
	Brigade, Land the.....	<b>M Z X</b>
	Brigade, Embark the.....	<b>N A L</b>
<b>N Y Q</b>	Bring off mail.	
<b>N Y R</b>	Bring off officers.	
<b>N Y S</b>	Bring off ice.	
<b>N Y T</b>	Bring off working parties.	
	Bring torpedoes alongside.....	<b>N E G</b>
	Bring master on board with papers.....	<b>N W S</b>
	Bring screens to ship from target-s indicated by numerals .....	<b>N F H</b>
<b>N Y U</b>	Buildings, Set the, on fire.	
<b>N Y V</b>	Buildings, Destroy the.	
<b>N Y W</b>	Buoy, Make fast to.	
<b>N Y X</b>	Buoy the obstructions.	
<b>N Y Z</b>	Buoy the position before leaving it.	
<b>N Z A</b>	Buoy out a channel through the mine field.	
	Buoy, Pick up the, adrift, now or when indicated	<b>N B Y</b>
	Buoy (or buoyed) position where torpedo sank .....	<b>N B Z</b>
	Buoy, Replace flag (or lantern) on the, indicated, now or when indicated.....	<b>N C A</b>
<b>N Z B</b>	Buoy, Take the place of the, that is out of place or gone.	
	Buoy, Replace .....	<b>N C D</b>
	Buoy-s in place.....	<b>N C B</b>
<b>N Z C</b>	Buoys have been removed from the channel.	
<b>N Z D</b>	Buoys, Plant marker.	
<b>N Z E</b>	Buoyed, The channel is.	
	Bursting, Projectiles are, beyond target or enemy (yards may be indicated).....	<b>N H M</b>
	Bursting, Projectiles are, short of target or enemy (yards may be indicated).....	<b>N H L</b>
<b>N Z F</b>	Business, Dispatch, and return with least delay.	
	Caliber, How many hits by each.....	<b>N C J</b>
	Calibers, Hits by, beginning with largest, indicated by numerals .....	<b>N C K</b>
	Caliber, Set screens for, indicated by numeral-s .....	<b>N F O</b>
<b>N Z G</b>	Calkers, Require.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

## LETTERS

<b>N Z H</b>	Calkers, Will send.	
<b>N Z I</b>	Capsized, Has.	
	Capture and hold the armory.....	<b>N Q Z</b>
<b>N Z J</b>	Cargo is damaged.	
<b>N Z K</b>	Cargo is valuable.	
<b>N Z L</b>	Cargo is contraband.	
<b>N Z M</b>	Cargo, Destroy the.	
<b>N Z O</b>	Cargo, Save, if possible.	
<b>N Z P</b>	Cargo is of small value.	
<b>N Z Q</b>	Cargo is or will be a total loss.	
<b>N Z R</b>	Carry out orders or instructions.	
	Cast off the tow-s.....	<b>N J A</b>
	Cast off, Boats in tow, tow-lines, beginning with rear boat-s.....	<b>N I S</b>
	Cautiously, Advance .....	<b>N M H</b>
<b>N Z S</b>	Caution (when this signal is made keep a bright lookout all around for danger of any kind)..	
	Cease firing with artillery.....	<b>N H D</b>
	Cease firing (negative over "open fire").....	
	Cease firing with machine-guns and small-arms	<b>N H E</b>
<b>N Z T</b>	Chain (or cable), Have grappled the.	
	Change front to right—Guide right (oblique). (Change is eight points unless otherwise indicated by numeral or by compass-signal).....	<b>M O K</b>
	Change front to left—Guide left (oblique). (Change is eight points unless otherwise indicated by numeral or by compass-signal.)....	<b>M O L</b>
	Change front to right (rectangular)—1. Boats right, head of column right. (Change is eight points unless otherwise indicated by numeral or by compass-signal.) 2. Boats left.....	<b>M O X</b>
	Change front to left (rectangular)—1. Boats left, head of column left. (Change is eight points unless otherwise indicated by numeral or by compass-signal.) 2. Boats right.....	<b>M O Y</b>
<b>N Z U</b>	Channel is clear.	
<b>N Z V</b>	Channel, The, is narrow.	
<b>N Z W</b>	Channel, The, is deep.	
	Channel, The, is buoyed.....	<b>N Z E</b>
<b>N Z X</b>	Channel, Acquainted with the.	
<b>N Z Y</b>	Channel, The, is straight.	
<b>O A B</b>	Channel, Mark the, by anchoring in the fairway.	
<b>O A C</b>	Channel, Mark the, by anchoring either side.	
<b>O A D</b>	Channel, Keep on starboard side of.	
<b>O A E</b>	Channel, Keep on port side of.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O A F</b>	Channel, Keep in middle of.	
<b>O A G</b>	Channel is obstructed with mines.	
<b>O A H</b>	Channel is filled with snags.	
<b>O A I</b>	Channel, Drag (or sweep) the, for torpedoes or mines.	
<b>O A J</b>	Channel is buoyed out through the mine field.	
<b>O A K</b>	Charge, Who is in, of boat (flotilla) indicated.	
	Charge, Senior officer in flotilla take.....	<b>N B H</b>
	Charge, Division flotilla commander-s take....	<b>N B E</b>
	Charge, Ships' flotilla commander-s take.....	<b>N B D</b>
	Charge, Squadron flotilla commander-s take....	<b>N B F</b>
	Charge, Brigade (or landing-force) commander take .....	<b>N B G</b>
<b>O A L</b>	Chart-s, Have no.	
<b>O A M</b>	Chart-s are badly in error.	
<b>O A N</b>	Chart-s, Require, of locality.	
<b>O A P</b>	Chase, Have abandoned the.	
<b>O A Q</b>	Chase is suspicious.	
<b>O A R</b>	Chase, Detain.	
<b>O A S</b>	Chase is armed.	
<b>O A T</b>	Chase is a friend.	
<b>O A U</b>	Chase, Gain on.	
<b>O A V</b>	Chase, Bring, to senior officer.	
<b>O A W</b>	Chase, Recall, or leave off.	
<b>O A X</b>	Chase, Examine, or stranger.	
<b>O A Y</b>	Chase is a merchant-vessel.	
<b>O A Z</b>	Chase is a vessel-of-war.	
<b>O B A</b>	Chase is an enemy or stranger.	
<b>O B C</b>	Chase, or steer, as per compass-signal.	
<b>O B D</b>	Chasing, Boats, keep in signal distance.	
<b>O B E</b>	Cholera, There is, on shore.	
	Civil authorities, Apply to, for assistance if necessary .....	<b>N S V</b>
<b>O B F</b>	Civilities, Decline offer of.	
<b>O B G</b>	Civilities, Accept offer of.	
<b>O B H</b>	Close up.	
	Close to half interval.....	<b>M T S</b>
<b>O B I</b>	Close the target (or enemy).	
<b>O B J</b>	Close up the units of your command.	
<b>O B K</b>	Close up to hailing distance.	
<b>O B L</b>	Close, Keep, to shore.	
<b>O B M</b>	Close round commanding officer or vessel indicated.	
	Close, You are too, to the wind.....	<b>M Y W</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Close interval (number of yards may be indicated by numeral).....	<b>MTU</b>
	Close up and assume proper numbers in formation without regard to boat-s dropped out....	<b>MNP</b>
	Closer, Go, into action.....	<b>NMA</b>
	Coal, Require .....	<b>MSI</b>
<b>0 B N</b>	Coal is very wet.	
	Coal and water, Require.....	<b>MSL</b>
<b>0 B P</b>	Coal wharf, Go alongside the, and fill with coal.	
	Coal and water, Fill with, immediately (or when indicated) .....	<b>MSN</b>
	Coal and water, Have sufficient, for service ordered (or intended).....	<b>MSO</b>
<b>0 B Q</b>	Colors, Half-mast the.	
<b>0 B R</b>	Colors, Show or hoist your.	
<b>0 B S</b>	Colors, Show or hoist false.	
<b>0 B T</b>	Colors, Unship (or lower) your.	
<b>0 B U</b>	Colors, Ship or hoist your.	
	Column, Form .....	<b>MLA</b>
	Column, Open order, Form.....	<b>MLB</b>
	Column of divisions, Formation.....	<b>MNK</b>
	Column of squadrons, Formation.....	<b>MNJ</b>
	Column, Form, by the wind on starboard tack..	<b>MVE</b>
	Column, Form, by the wind on port tack.....	<b>MVF</b>
	Column right, Ships' flotilla-s (eight points unless otherwise indicated).....	<b>MOG</b>
	Column left, Ships' flotilla-s (eight points unless otherwise indicated).....	<b>MOH</b>
	Column-s right (eight points unless otherwise indicated) .....	<b>MOC</b>
	Column-s left (eight points unless otherwise indicated) .....	<b>MOD</b>
	Column-s, Head of, right about, countermarch.	<b>MOE</b>
	Column-s, Head of, left about, countermarch..	<b>MOF</b>
	Column of Divisions, Form line of ships' flotillas in, on beam of designated ship.....	<b>MLP</b>
	Column of ships' flotillas, Form, on beam of designated ship .....	<b>MLN</b>
	Column, Ships' flotillas form in, on beam of designated ship .....	<b>MLI</b>
	*Column, Indented, form to starboard, even numbered boats will, unless squadrons or divisions are indicated .....	<b>MPW</b>

\* NOTE.—Applicable to steamer tactical flotillas only.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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*Column, Indented, form to port. Even numbered boats will, unless squadrons or divisions are indicated .....	<b>MPX</b>
Column, Ships' flotillas form in, on beam of their respective ships.....	<b>MLH</b>
Column, Form, on this or designated boat.....	<b>MLC</b>
Column, Form, on beam of designated ship....	<b>MLD</b>
Column of divisions, Form ships' flotillas in line in, on beam of designated ship.....	<b>MLQ</b>
Column of ships' flotillas in line of divisions, Form, on beam of designated ship.....	<b>MLS</b>
Column, Form ships' flotillas in, in line of divisions, on beam of designated ship.....	<b>MLR</b>
Column of squadrons, Form line of ships' flotillas in, on beam of designated ship.....	<b>MLT</b>
Column of ships' flotillas in line of squadrons, Form, on beam of designated ship.....	<b>MLX</b>
Column of squadrons, Form ships' flotillas in line in, on beam of designated ship.....	<b>MLU</b>
Column, Form ships' flotillas in, in line of squadrons on beam of designated ship.....	<b>MLV</b>
*Column, Form steamer tactical flotilla in, on beam of designated ship.....	<b>MLY</b>
*Column of squadrons, Form steamer tactical flotilla in, on beam of designated ship.....	<b>MLZ</b>
*Column of divisions, Form steamer tactical flotilla in, on beam of designated ship.....	<b>MNA</b>

Column from Line.

Column, Form, (oblique)—Right boat forward, other boats right oblique. (See "Signal Line of Bearing Change," beginning <b>FM</b> .).....	<b>MOI</b>
Column, Form (oblique)—Left boat forward, other boats left oblique. (See signals "Line of Bearing Change," beginning <b>FM</b> .).....	<b>MOJ</b>
Column, Form, to the front (or rear) on right boat (rectangular)—1. Boats right. 2. Head of column left (or right).....	<b>MOZ</b>
Column, Form, to the front (or rear) on the left boat (rectangular)—1. Boats left. 2. Head of column right (or left).....	<b>MPA</b>

\* NOTE.—Applicable to steamer tactical flotillas only.



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## Column, from Line of Divisions or Line of Ships' Flotillas.

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Column, Form—Right ship's flotilla forward, left ships' flotillas right oblique.....	<b>MRN</b>
Column, Form—Left ship's flotilla forward right ships' flotillas left oblique.....	<b>MRO</b>
*Column, Form—Right division (or squadron) forward, left divisions right oblique.....	<b>MRP</b>
*Column, Form—Left division (or squadron) forward, right divisions, left oblique.....	<b>MRQ</b>
Column, Form, to the front on the right ship's flotilla (rectangular)—1. Ships' flotillas, column right. 2. Column left.....	<b>MRS</b>
Column, Form, to the front on the left ship's flotilla (rectangular)—1. Ships' flotillas column left. 2. Column right.....	<b>MRT</b>
*Column, Form, to the front on the right division (or squadron) (rectangular)—1. Divisions, column right. 2. Column left....	<b>MRW</b>
*Column, Form, to the front on the left division (or squadron) (rectangular)—1. Divisions, column left. 2. Column right.....	<b>MRX</b>

## Column, from Column of Divisions or Column of Ships' Flotillas.

Column, Form—Right boats forward, other boats right oblique (or signal "Line of Bearing Change") .....	<b>MQV</b>
Column, Form—Left boats forward, other boats left oblique (or signal "Line of Bearing Change") .....	<b>MQW</b>
Column, Form, to the front (or rear) (rectangular)—1. Boats right. 2. Head of columns left (or right).....	<b>MQZ</b>
Column, Form, to the front (or rear) (rectangular)—1. Boats left. 2. Head of columns right (or left).....	<b>MRA</b>
Column, Form, to the right on the leading ship's flotilla (rectangular)—Leading ship's flotilla boats right, rear ships' flotillas forward.....	<b>MRB</b>
Column, Form, to the left on the leading ship's flotilla (rectangular)—Leading ship's flotilla boats left, rear ships' flotillas forward.....	<b>MRC</b>
*Column, Form, to the right on the van division (or squadron) (rectangular)—Van division (or squadron) boats right, rear divisions forward .....	<b>MRG</b>

\* NOTE.—Applicable to steamer tactical flotillas only.



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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- \*Column, Form, to the left on the van division (or squadron) (rectangular)—Van division (or squadron) boats left, rear divisions forward **MRH**

**Column of Divisions (or Squadrons), or Column of Ships' Flotillas, from Line.**

- Column of ships' flotillas, Form (oblique)—Right ship's flotilla forward, left ships' flotillas right oblique—Guide right..... **MON**
- Column of ships' flotillas, Form (oblique)—Left ship's flotilla forward, right ships' flotillas left oblique—Guide left ..... **MOP**
- Column of ships' flotillas, Form, to the front (or rear) on the right ship's flotilla (rectangular)—1. Boats right. 2. Leading flotilla boats left (or right), rear flotillas forward..... **MPD**
- Column of ships' flotillas, Form, to the front (or rear), on the left ship's flotilla (rectangular)—1. Boats left. 2. Leading flotilla boats right (or left), rear flotillas forward.. **MPE**
- \*Column of divisions (or squadron), Form (oblique)—Right division forward, left divisions right oblique—Guide right..... **MOT**
- \*Column of divisions (or squadron), Form (oblique)—Left division forward, right divisions left oblique—Guide left..... **MOU**
- \*Column of divisions or (squadron), Form, to the front (or rear) on the right boats (rectangular)—1. Boats right. 2. Leading division boats left (or right), rear divisions forward.. **MPH**
- \*Column of divisions (or squadrons), Form, to the front (or rear) on the left boats (rectangular)—1. Boats left. 2. Leading division boats right (or left), other divisions forward **MPI**

**Column of Divisions, or Column of Ships' Flotillas, from Column.**

- Column of ships' flotillas, Form—Heads of ships' flotillas forward, other boats right oblique—Guide left ..... **MPQ**
- Column of ships' flotillas, Form—Heads of ships' flotillas forward, other boats left oblique—Guide right ..... **MPR**

\* NOTE.—Applicable to steamer tactical flotillas only.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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Column of ships' flotillas, Form, to the front (or rear) (rectangular)—1. Ships' flotillas column right. 2. Boats left (or right).....	<b>M Q G</b>
Column of ships' flotillas, Form, to the front (or rear) (rectangular)—1. Ships' flotillas column left. 2. Boats right (or left).....	<b>M Q H</b>
Column of ships' flotillas, Form, to the right (rectangular)—Leading ship's flotilla boats right, rear ships' flotillas forward. (This inverts the order.).....	<b>M Q C</b>
Column of ships' flotillas, Form, to the left (rectangular)—Leading ship's flotilla, boats left, rear ships' flotillas forward.....	<b>M Q D</b>
Column of ships' flotillas, Form, to the right (rectangular)—1. Head of column right about, other boats follow. 2. Ships' flotillas boats left .....	<b>M Q E</b>
Column of ships' flotillas, Form, to the left (rectangular)—1. Head of column left about, other boats follow. 2. Ships' flotillas boats right .....	<b>M Q F</b>
*Column of divisions (or squadrons), Form—Heads of divisions forward, other boats right oblique—Guide left .....	<b>M P U</b>
*Column of divisions (or squadrons), Form—Heads of divisions forward, other boats left oblique—Guide right .....	<b>M P V</b>
*Column of divisions (squadrons), Form, to the front (or rear) (rectangular)—1. Divisions, head of columns right. 2. Boats left (or right) .....	<b>M Q R</b>
*Column of divisions (or squadrons), Form, to the front (or rear) (rectangular)—1. Divisions, head of columns left. 2. Boats right (or left) .....	<b>M Q S</b>
*Column of divisions (or squadrons), Form, to the right (rectangular)—Van division boats right, rear divisions forward. (This inverts the order.) .....	<b>M Q L</b>
*Column of divisions (or squadrons), Form, to the left (rectangular)—Van division boats left, rear divisions forward.....	<b>M Q N</b>

\* NOTE.—Applicable to steamer tactical flotillas only.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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\*Column of divisions (or squadrons), Form, to the right (rectangular)—1. Head of column right about, other boats follow. 2. Divisions, boats left.....

M Q O

\*Column of divisions (or squadrons), Form, to the left (rectangular)—1. Head of column left about, other boats follow. 2. Divisions, boats right .....

M Q P

Combatant landing-force, Away, for emergency. (See Art. 72, Boat-Book.).....

M Z S

Combination race .....

N K H

Come on board.....

N W O

Come alongside .....

N B P

Come under the stern.....

M V G

Come under the bow.....

M V I

O B V

Come alongside and record protests (if any).

Come alongside for relief-crew-s, now or when indicated .....

N B Q

Come within hail now or when indicated....

N C F

Come alongside with repair-boat now or when indicated .....

N B R

O B W

Comforts, Sick or wounded have necessary.

O B X

Coming, The enemy is (direction may be indicated).

O B Y

Command, What is the condition of the?

O B Z

Commander-in-chief.

O C A

Commander-in-chief is on shore.

O C B

Commander-in-chief is sick or wounded.

O C D

Commander is dead or killed.

Communicate, Boats may .....

N Y D

O C E

Communicate with fleet by boat.

O C F

Communicate with me by boat.

O C G

Communicate intelligence by signal.

O C H

Communicate with flagship.

O C I

Communicate, Wish to.

O C J

Communication has been established.

O C K

Communication has been re-established.

O C L

Communication is cut off.

O C M

Communication, Establish, with ship-s.

O C N

Communication, Keep open.

O C P

Communication, Prevent all.

O C Q

Communication by railroad is destroyed.

O C R

Communications, Interrupt enemy's.

\* NOTE.—Applicable to steamer tactical flotillas only.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O C S</b>	Communications, Re-establish.	
	Compass Courses (see Table beginning <b>B Q C</b> ).	
<b>O C T</b>	Compass-es, Require boat.	
<b>O C U</b>	Company, Part.	
<b>O C V</b>	Company, Keep in.	
	Completed, Repairs are.....	<b>N D S</b>
<b>O C W</b>	Completed, Duty assigned is.	
	Completed, Repairs to raft-s can be, in minutes indicated by numerals.....	<b>N D J</b>
<b>O C X</b>	Concert, Act in.	
<b>O C Y</b>	Condition is bad.	
<b>O C Z</b>	Condition is good.	
<b>O D A</b>	Conditions are favorable.	
<b>O D B</b>	Conditions have improved.	
<b>O D C</b>	Conditions are improving.	
<b>O D E</b>	Conditions are quiet on shore.	
<b>O D F</b>	Conditions are disturbed on shore.	
<b>O D G</b>	Contagion, or infection, Guard against.	
<b>O D H</b>	Continue action.	
	Contraband, Cargo is.....	<b>N Z L</b>
<b>O D I</b>	Control, Can, the men.	
<b>O D J</b>	Control, Can, the mob.	
	Co-operate with army.....	<b>N R D</b>
	Countermarch, Head of column-s, right about..	<b>M O E</b>
	Countermarch, Head of column-s, left about..	<b>M O F</b>
<b>O D K</b>	Counter-mines are required as indicated by numeral.	
<b>O D L</b>	Course, Resume.	
<b>O D M</b>	Course is as per compass-signal.	
<b>O D N</b>	Course, Steer same, as senior officer.	
<b>O D P</b>	Course, What, are you steering?	
<b>O D Q</b>	Course, What, were they or was she steering?	
<b>O D R</b>	Course, What, do they or does she steer?	
	Course, As soon as you cross the line make sail and sail over the, or the course indicated by numeral .....	<b>N K P</b>
	Cover, Artillery, the landing.....	<b>N G P</b>
	Cover retreat of our army.....	<b>N R F</b>
	Cover left flank of our army.....	<b>N R G</b>
	Cover right flank of our army.....	<b>N R H</b>
<b>O D S</b>	Cover the embarkation of men with boat guns.	
<b>O D T</b>	Creeping, Attack mine-field by.	
	Crew-s, Boat-s', pulling badly.....	<b>M V H</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Cup (or trophy), Send to vessel indicated and receive .....	<b>N K U</b>
<b>O D U</b>	Cut her out.	
<b>O D Y</b>	Cut out, Can you, her or them?	
<b>O D W</b>	Cut out and bring off vessel-s at the anchorage. Cutters .....	<b>N J U</b>
<b>O D X</b>	Cutter, Send, to this or designated vessel. Cutting out, Away landing-force-s armed and equipped for .....	<b>M Z L</b>
<b>O D Y</b>	Cylinder is cracked.	
<b>O D Z</b>	Damage, Report. Damage, Report the nature of your, accident or breakdown .....	<b>N J F</b>
<b>O E A</b>	Damaged severely.	
<b>O E B</b>	Danger, There is.	
<b>O E C</b>	Danger, You are running into.	
<b>O E D</b>	Danger, Avoid unnecessary.	
<b>O E F</b>	Dangerous surf.	
<b>O E G</b>	Dangerous, It is.	
<b>O E H</b>	Dark, Boats must return before.	
<b>O E I</b>	Darkness, Take advantage of the. Date signals (see Table beginning <b>L V</b> ).	
<b>O E J</b>	Daylight, Sail or proceed at.	
<b>O E K</b>	Daylight, Take advantage of the.	
<b>O E L</b>	Dead, Number, indicate-d by numerals.	
<b>O E M</b>	Dead, or killed, Medical officer is.	
<b>O E N</b>	Death rate is increasing on shore.	
<b>O E P</b>	Death rate is decreasing on shore.	
<b>O E Q</b>	Decline all assistance.	
<b>O E R</b>	Decline an interview.	
<b>O E S</b>	Decline proposed terms. Decrease range .....	<b>N I O</b>
	Decrease speed a little.....	<b>M T E</b>
<b>O E T</b>	Defeated, The enemy has been.	
<b>O E U</b>	Defeated, We have been.	
<b>O E V</b>	Defects are remedied.	
<b>O E W</b>	Defects, Report, by letter immediately.	
<b>O E X</b>	Defects, Report, by signal.	
<b>O E Y</b>	Defection appears general. Defensive, Act on the.....	<b>N M B</b>
<b>O E Z</b>	Defensive, Intend to act on the.	
<b>O F A</b>	Defense, Make a good.	
<b>O F B</b>	Defensive, Take, position.	
<b>O F C</b>	Delay, Proceed without.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O F D</b>	Delay, Report cause of.	
<b>O F E</b>	Delay is, or has been, unavoidable.	
<b>O F G</b>	Delay caused by bad weather.	
<b>O F H</b>	Delay departure until further orders.	
<b>O F I</b>	Deliberately, Fire more.	
<b>O F J</b>	Deliver refugees to proper authorities.	
<b>O F K</b>	Demand the surrender of the place (or force).	
<b>O F L</b>	Demands, Concede the.	
<b>O F M</b>	Demoralized, The enemy is greatly.	
<b>O F N</b>	Demoralized, Our forces have become.	
<b>O F P</b>	Depredations, Prevent all.	
<b>O F Q</b>	Depth, Indicate, of water in feet.	
<b>O F R</b>	Destroyed, Was.	
<b>O F S</b>	Destroy, Can.	
	Destroy the building-s.....	<b>N Y V</b>
<b>O F T</b>	Destroy, Obligated to.	
<b>O F U</b>	Destroy prize.	
<b>O F V</b>	Destroy, Shall I?	
	Destroy, Abandon and, the place.....	<b>N I F</b>
<b>O F W</b>	Destroy prize if you cannot get her off.	
<b>O F X</b>	Destroy everything that cannot be brought off with safety.	
	Detain chase .....	<b>O A R</b>
<b>O F Y</b>	Detain the fugitives.	
<b>O F Z</b>	Detain the coal vessel.	
<b>O G A</b>	Detain the mail-boat or steamer.	
<b>O G B</b>	Developments are expected.	
<b>O G C</b>	Developments, There are new.	
<b>O G D</b>	Difficult, The landing is.	
<b>O G E</b>	Diphtheria, The disease is.	
	Dinghies .....	<b>N J V</b>
<b>O G F</b>	Dinner, Go to.	
<b>O G H</b>	Dinner, Postpone, until hour indicated.	
<b>O G I</b>	Dinner, Boat-s crew-s are to get.	
	Disabled, Engine is .....	<b>N J P</b>
	Disabled, Boat is .....	<b>N J M</b>
<b>O G J</b>	Disappeared, All traces of the enemy have.	
<b>O G K</b>	Disaster, Expedition has met with.	
<b>O G L</b>	Discipline, Enforce strict.	
	Discontinue action .....	<b>N L Y</b>
<b>O G M</b>	Discontinue present exercise.	
<b>O G N</b>	Discretion, Act with.	
<b>O G P</b>	Discretion, Act at.	
<b>O G Q</b>	Disease is dysentery.	



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O G R</b>	Disease is typhoid fever.	
<b>O G S</b>	Disease is yellow fever.	
<b>O G T</b>	Disease is epidemic.	
	Disembark, Flotilla-s stand into landing and, in natural order .....	<b>N A R</b>
	Disembark, Flotilla-s stand into landing and, in inverted order.....	<b>N A S</b>
	Disembark, Flotilla-s stand into landing and, in the order indicated by distinguishing-flags or pennants .....	<b>N A T</b>
	Dismantle the raft-s indicated by numeral, now or when indicated.....	<b>N D H</b>
<b>O G U</b>	Disorder, Prevent, at landing (or wharf).	
<b>O G V</b>	Disorder, Require more petty officers to suppress.	
<b>O G W</b>	Disorder, Require more marines or men to suppress.	
<b>O G X</b>	Disorder, Suppress all.	
<b>O G Y</b>	Disorder, Suppress, among liberty men.	
<b>O G Z</b>	Disorder, There is great.	
<b>O H A</b>	Disorderly, Arrest, liberty men.	
<b>O H B</b>	Disorderly, Send, liberty men on board.	
<b>O H C</b>	Disorganized, Everything is, on shore.	
<b>O H D</b>	Dispatch is necessary.	
<b>O H E</b>	Dispatch, Use the greatest.	
<b>O H F</b>	Dispatches, Have.	
<b>O H G</b>	Dispatches, Go for.	
<b>O H I</b>	Dispatches, Wait for.	
<b>O H J</b>	Dispatches, Take, out of vessel indicated and bring to senior officer.	
<b>O H K</b>	Dispatches have arrived for the commander-in-chief.	
<b>O H L</b>	Disperse and form or proceed as indicated.	
	Disqualified, Boat-s indicated has been.....	<b>N K V</b>
<b>O H M</b>	Disregard motions of senior officer.	
<b>O H N</b>	Disposition, What, shall be made of prisoners?	
<b>O H P</b>	Disposition, What, shall be made of prize?	
	Distance, Take .....	<b>M T I</b>
	Distance, Take double .....	<b>M T J</b>
	Distance, Take half .....	<b>M T K</b>
	Distance, Take proper .....	<b>M T L</b>
	Distance, Observe, more carefully.....	<b>M T P</b>
<b>O H Q</b>	Distance, You are at proper.	
	Distance, Report, from ship (or boat) indicated	<b>M T N</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Distance in yards is as indicated by numerals..	<b>M T O</b>
	Distance, Take, as indicated in yards by numerals .....	<b>M T R</b>
	Distance, Take scouting, (number of quarter-miles may be indicated by numeral).....	<b>M T Q</b>
	Distant service, Away landing-force armed and equipped for .....	<b>M Z K</b>
<b>O H R</b>	Distinguishing-flag, Boat, is not plain.	
<b>O H S</b>	Distress, Assist vessel in.	
<b>O H T</b>	Distress, Stay by vessel in.	
<b>O H U</b>	Distress, Am in.	
<b>O H V</b>	Distress, Signals of, in direction indicated.	
<b>O H W</b>	Diving apparatus, Need.	
	Do the best possible.....	<b>N W A</b>
<b>O H X</b>	Do, Can I, anything for you?	
<b>O H Y</b>	Done, Well.	
<b>O H Z</b>	Done, Badly.	
<b>O I A</b>	Done, It is.	
<b>O I B</b>	Done, It can be.	
<b>O I C</b>	Drag for telegraph cable-s.	
	Drag (or sweep) the channel for torpedoes, (or mines) .....	<b>O A I</b>
<b>O I D</b>	Draw the enemy's fires.	
<b>O I E</b>	Drowned, Number, indicated by numerals.	
<b>O I F</b>	Earthworks, Throw up.	
<b>O I G</b>	Easy, The harbor or place is, of access.	
<b>O I H</b>	Ebb-tide, Wait for.	
<b>O I J</b>	Economize in the use of supplies.	
<b>O I K</b>	Effective, Fire is (or has been).	
<b>O I L</b>	Elevate guns more.	
	Embark the artillery .....	<b>N G O</b>
	Embark the brigade .....	<b>N A L</b>
	Embark landing-force .....	<b>N A H</b>
	Embark marines .....	<b>N A F</b>
	Embark seamen .....	<b>N A G</b>
	Embark the battalion-s of seamen.....	<b>N A I</b>
	Embark the battalion-s of marines.....	<b>N A J</b>
	Embark the marine detachment-s.....	<b>N A K</b>
	Embark, Send boats to, the brigade.....	<b>N A M</b>
	Embark, Send boats to, the landing-force.....	<b>N A O</b>
	Embark, Flotilla-s stand into landing and, landing-force (or brigade).....	<b>N A U</b>
	Embark the brigade or landing-force in the order in which it landed.....	<b>N A P</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Embark the brigade or landing-force in the inverse order in which it landed.....	<b>N A Q</b>
	Embarkation, Cover the, of men with boat guns	<b>O D S</b>
<b>O I M</b>	Embarked, Our forces are.	
<b>O I N</b>	Emergency is passed.	
	Enemy, Close the target or.....	<b>O B I</b>
	Enemy's flotilla-s, Attack.....	<b>N T A</b>
	Enemy, Increase distance from target or.....	<b>N H F</b>
	Enemy, Mean to attack the, as soon as possible, or when indicated.....	<b>N T K</b>
<b>O I P</b>	Enemy's pickets (or picket-boats) are seen.	
<b>O I Q</b>	Enemy, Flank the, on the right.	
<b>O I R</b>	Enemy, Flank the, on the left.	
<b>O I S</b>	Enemy is going to sea.	
<b>O I T</b>	Enemy has gone to sea.	
<b>O I U</b>	Enemy is at sea.	
<b>O I V</b>	Enemy is collecting in force.	
<b>O I W</b>	Enemy is advancing with guns.	
<b>O I X</b>	Enemy is advancing with cavalry.	
<b>O I Y</b>	Enemy is advancing with infantry.	
<b>O I Z</b>	Enemy is retreating.	
<b>O J A</b>	Enemy's ships sighted steering as indicated.	
<b>O J B</b>	Enemy's ships are coming out.	
<b>O J C</b>	Enemy, Engage the.	
<b>O J D</b>	Enemy's ships are at anchor.	
<b>O J E</b>	Enemy's ships sighted, number indicated.	
<b>O J F</b>	Enemy, Is an, or are enemies.	
<b>O J G</b>	Enemy, The, is throwing up batteries.	
<b>O J H</b>	Enemy's ships have been sighted.	
<b>O J I</b>	Enemy is underway.	
	Enemy is advancing.....	<b>N M Q</b>
	Enemy has the advantage.....	<b>N M T</b>
<b>O J K</b>	Enemy's, Reconnoiter, position.	
	Engine is disabled.....	<b>N J P</b>
	Engineer force, Exercise boats under oars, independently, with crews of.....	<b>M Z C</b>
	Engineer force, Exercise boats under oars, independently, with crews of marines and.....	<b>M Z E</b>
<b>O J L</b>	Engineer officer, Require the services of an.	
	Equip, Arm and, artillery boats for service....	<b>N G R</b>
<b>O J M</b>	Equipped, Lightly.	
<b>O J N</b>	Equipped, Fully.	
<b>O J P</b>	Establish communication by signal with the shore.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O J Q</b>	Evolution was not correctly performed. Examine edges of target-s indicated by numeral-s carefully for hits.....	<b>N C S</b>
	Exercise, Discontinue present .....	<b>O G M</b>
	Exercise boats under oars by squadron flotillas	<b>M Z B</b>
	Exercise boats under oars by division flotillas	<b>M Z A</b>
	Exercise boats under oars, independently.....	<b>M Y X</b>
	Exercise boats under oars by ship flotilla-s....	<b>M Y Z</b>
<b>O J R</b>	Expected, Dispatches are.	
<b>O J S</b>	Expected, Developments are.	
<b>O J T</b>	Expedite the boat-s.	
<b>O J U</b>	Expedite the departure of the expedition.	
<b>O J V</b>	Expedite the work on hand.	
<b>O J W</b>	Expedite the movements of your command.	
<b>O J X</b>	Expedite completion of duty you are now engaged upon.	
<b>O J Y</b>	Expedition, Have received news of.	
<b>O J Z</b>	Expedition has sailed.	
<b>O K A</b>	Expedition has returned.	
<b>O K B</b>	Expedition, Follow the.	
<b>O K C</b>	Expel from limits of your command all enemies, intruders, and suspicious persons.	
<b>O K D</b>	Exploders, Need.	
<b>O K E</b>	Expose, Do not, the men unnecessarily.	
<b>O K F</b>	Exposed, Position is too much.	
<b>O K G</b>	Exposed, Our boats are, to the enemy's artillery.	
<b>O K H</b>	Extend the line more.	
<b>O K I</b>	Failed, The enterprise.	
<b>O K J</b>	Fall, Report, of projectiles.....	<b>N H T</b>
<b>O K L</b>	False alarm. Faster, Go .....	<b>N I L</b>
<b>O K M</b>	Favorable, Everything is.	
<b>O K N</b>	Feint, Make a, to mislead the enemy.	
<b>O K P</b>	Fenders, In.	
<b>O K Q</b>	Ferry, Guard the.	
<b>O K R</b>	Field pieces, Land with.	
<b>O K S</b>	Field pieces, Land without.	
<b>O K T</b>	Field pieces, Require.	
<b>O K U</b>	Field pieces are needed on shore. Finish, Order of boats at, indicate-d by distinguishing-pennants .....	<b>N K W</b>
<b>O K V</b>	Fire, Is on.	
<b>O K W</b>	Fire is extinguished.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O K X</b>	Fire, Set, to enemy's vessel-s as indicated.	
<b>O K Y</b>	Fire rapidly.	
	Fire, Open, with shell.....	<b>N G X</b>
<b>O K Z</b>	Fire parties return to ship-s or station.	
<b>O L A</b>	Fire, The ship or vessel is on, and requires assistance.	
	Fire, Open, with shrapnel.....	<b>N G Y</b>
	Fire, Open (under the negative "cease firing")	<b>N G W</b>
<b>O L B</b>	Firemen, In need of.	
<b>O L C</b>	Fire-raft-s, Take in tow and land or destroy.	
	Fires, Bank .....	<b>M S F</b>
	Fires, Haul .....	<b>M S G</b>
	Fires, Spread .....	<b>M S H</b>
	Firing-line, Lie in rear of.....	<b>N C V</b>
	Firing-line, Lie in rear of, then follow torpedo.	<b>N C W</b>
	Firing, Cease, with artillery.....	<b>N H D</b>
	Firing, Cease, with machine-guns and small-arms .....	<b>N H E</b>
	Firing, Commence, with small-arms.....	<b>N H B</b>
	Firing, Commence, with machine-guns.....	<b>N H A</b>
	Firing, Commence, with artillery.....	<b>N G Z</b>
<b>O L D</b>	Fishing lines and hooks, Need.	
<b>O L E</b>	Follow motions of senior officer.	
	Follow the torpedo.....	<b>N E L</b>
<b>O L F</b>	Follow the expedition.	
	Follow ship on range, then follow torpedo.....	<b>N C E</b>
<b>O L G</b>	Follow this or indicated boat without further orders.	
<b>O L H</b>	Food, Require.	
<b>O L I</b>	Forage upon the enemy.	
<b>O L J</b>	Force, What is the condition of the, ashore?	
<b>O L K</b>	Force present is sufficient.	
	Formation, Boats with guns leave the, and form separately .....	<b>N G S</b>
	Formation, Boats without guns leave the, and form separately .....	<b>N G U</b>
	Formation, Boats with machine-guns leave the, and form separately.....	<b>N G T</b>
	Formation, Close up and assume proper numbers in, without regard to boat-s dropped out	<b>M N P</b>
	Formation, Form in present, in order shown by ships' distinguishing-pennants .....	<b>M N O</b>
	Formation, Leave the, and follow at such speed as you can.....	<b>M N R</b>



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Formation, Leave, and return to your ship.....	<b>M N S</b>
	Formation, Line .....	<b>M L E</b>
	Formation, Order of ships' flotillas in, is as shown by their ships' distinguishing-pennants	<b>M N L</b>
	Formation, Stop and cast off tow-s preserving.	<b>N J B</b>
	Formation, Your number in, is indicated by numeral .....	<b>M N Q</b>
<b>O L M</b>	Fortify the position.	
<b>O L N</b>	Forts, Are there?	
<b>O L P</b>	Forts, Examine.	
<b>O L Q</b>	Fort-s, How many guns have the?	
<b>O L R</b>	Fort, Is a strong.	
<b>O L S</b>	Fort-s, Keep out of fire from the.	
<b>O L T</b>	Fort-s mount number of guns indicated.	
<b>O L U</b>	Friendly, The indications are.	
	Front (see "Change Front").	
<b>O L V</b>	Fugitives, Dispose of the, to the best advantage.	
	Full speed, Steam at.....	<b>M T A</b>
<b>O L W</b>	Funds, Need.	
	Furl screen-s on target-s indicated by numeral-s	<b>N F I</b>
	Further, Lie, from targets.....	<b>N C Z</b>
<b>O L X</b>	Gale, Prepare for a heavy.	
<b>O L Y</b>	Garrison needs fuel.	
<b>O L Z</b>		
<b>O M A</b>	Garrison needs water.	
<b>O M B</b>	Garrison, Bring off the.	
<b>O M C</b>	Garrison, Can relieve the.	
<b>O M D</b>	Garrison, Endeavor to relieve the.	
<b>O M E</b>	General, The, requests or wishes consultation.	
	Gigs .....	<b>N J W</b>
	Give way together.....	<b>N K D</b>
<b>O M F</b>	Guard, Row, during the night.	
	Guard (or mail) boat, Get mail from.....	<b>N D A</b>
	Guide center .....	<b>M U D</b>
	Guide left .....	<b>M U C</b>
	Guide right .....	<b>M U B</b>
	Guide, Observe, more carefully.....	<b>M U E</b>
<b>O M G</b>	Gun-carriages, Disable the.	
<b>O M H</b>	Gun-cotton is expended.	
<b>O M I</b>	Guns, Disable the.	
<b>O M J</b>	Guns, Dismount the.	
<b>O M K</b>	Gun-s is (are) disabled.	
	Guns, How many have the forts.....	<b>O L Q</b>
<b>O M L</b>	Guns, Mount the.	



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>OMN</b>	Guns, Throw overboard the.	
<b>OMP</b>	Gun-fire, Keep clear of, or targets.....	<b>NDY</b>
<b>OMQ</b>	Gunshot, Keep out of.	
<b>OMR</b>	Gunwale, Haul in line over.	
<b>OMS</b>	Gunwale, Keep men off of.	
	Hail, Come within, now or when indicated....	<b>NCF</b>
<b>OMT</b>	Hail, Pass within.	
<b>OMU</b>	Hail the vessel (may be indicated).	
<b>OMV</b>	Hailing distance, Close up to.	
	Half speed, Steam at.....	<b>MSX</b>
<b>OMW</b>		
<b>OMX</b>	Harbor, Bad.	
<b>OMY</b>	Harbor, Can see into.	
<b>OMZ</b>	Harbor, Good.	
<b>ONA</b>	Harbor, Proceed into.	
	Haul by the wind in succession, port tack.....	<b>MVK</b>
	Haul by the wind in succession, starboard tack.	<b>MVJ</b>
	Haul by the wind together, port tack.....	<b>MVN</b>
	Haul by the wind together, starboard tack....	<b>MVL</b>
	Haul up in succession number of points indicated .....	<b>MVO</b>
	Haul up together number of points indicated..	<b>MVQ</b>
<b>ONB</b>	Hawser, Need a.	
	Heading, You are, for torpedo.....	<b>NFD</b>
<b>ONC</b>	Headquarters, Send to army.	
<b>OND</b>	Heat is severe.	
	Heave to, port tack.....	<b>MVS</b>
	Heave to, starboard tack.....	<b>MVR</b>
	Helm, Full, use.....	<b>MUI</b>
	Helm, Greater, use.....	<b>MUJ</b>
	Helm, Smaller, use.....	<b>MUK</b>
	Helm, Port the.....	<b>MUF</b>
	Helm, Starboard, the.....	<b>MUG</b>
	Helm, Standard, use .....	<b>MUH</b>
	Higher, Set screen-s, on target-s indicated by numeral-s .....	<b>NFR</b>
<b>ONE</b>	High-water, What is the time of?	
	Hits, by caliber, beginning with largest, indicated by numerals.....	<b>NCK</b>
	Hits, Examine edge of target-s, indicated by numeral-s carefully for.....	<b>NCS</b>
	Hits, How many, by each caliber.....	<b>NCJ</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Hits, How many, on targets indicated by numerals .....	N C I
	Hits (number indicated by numerals).....	N C H
	Hits on boat-targets (number indicated by numerals) .....	N C R
	Hits on target No. 1 (number indicated by numerals) .....	N C M
	Hits on target No. 2 (number indicated by numerals) .....	N C O
	Hits on target No. 3 (number indicated by numerals) .....	N C P
	Hits on target No. 4 (number indicated by numerals) .....	N C Q
	Hits, Paint out, on all or target-s indicated by numerals .....	N C U
	Hit, The last torpedo fired.....	N C G
	Hits, Recount, on target-s indicated by numerals .....	N C L
	Hold water .....	M Y Q
	Hoisting, Get ready for, in boats.....	N B X
	Hours and minutes. (See Time Signals beginning L V.)	
	Hours to repair damage, indicated by numerals	N J G
0 N F	Ice is coming down.	
0 N G	Ice, Am caught in the.	
	Ice, Bring off .....	N Y S
	Increase range .....	N I M
	Increase distance from target or enemy.....	N H F
	Increase speed a little.....	M T D
	Increase steamer's speed.....	M Y B
	Infection or contagion, Guard against.....	0 D G
0 N H	Injured, Number, indicate-d by numeral.	
0 N I	Injured, Report number.	
0 N J	Inshore, Keep closer.	
0 N K	Inspect, Flag or senior officer will.	
0 N L	Inspect the boats.	
0 N M	Inspection, Be prepared for.	
0 N P	Instructions, Wait for.	
0 N Q	Instructions, Will send.	
0 N R	Intelligence, Obtain all possible.	
0 N S	Intelligence, Have, to communicate.	
0 N T		
	Intelligence, Communicate, by signal.....	0 C G
0 N U	Interpreter, Need an.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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Interval .....	<b>MTZ</b>
Interval, Close to half.....	<b>MTS</b>
Interval, Observe, more carefully.....	<b>MTY</b>
Interval, Take proper (yards may be indicated by numeral) .....	<b>MTX</b>
Interval, Open (yards may be indicated by numeral) .....	<b>MTV</b>
Interval, Take scouting (number of miles may be indicated by numeral).....	<b>MUA</b>
Interval, Close (number of yards may be indicated by numeral).....	<b>MTU</b>

**ONV** Intrenched, Our forces are.

**ONW** Intrenching-tools, Need.

**ONX** Keep possession of the vessel-s.

Keep men off gunwale.....

**OMS**

**ONY** Keep the lead going.

Keep lookout ahead .....

**NOE**

Keep close to shore.....

**OBL**

Keep up steam .....

**MSD**

Keep close to the wind.....

**MYV**

Keep closer inshore .....

**ONJ**

**ONZ** Keep further offshore.

Keep clear of the torpedo-range.....

**NEW**

Keep clear of targets or gun-fire.....

**NDY**

**OPA**

Keep out of fire from the fort-s.....

**OLS**

Keep clear, Tell the vessel-s which is on the course to please.....

**NKG**

Keep clear, Flotilla-s, of landing until preceding or indicated flotilla-s has embarked.....

**NAW**

Keep clear, Flotilla-s, of landing until preceding or indicated flotilla-s has disembarked.....

**NAX**

**OPB** Keep farther off.

**OPC** Keep in the offing.

**OPD** Keeping, Enemy is, off.

**OPE** Killed, Number of, is as indicated.

**OPF** Killed, Report number of.

**OPG** Knowledge, Have local.

Land, Boats advance and.....

**MVT**

Land the artillery .....

**NGM**

Land, Boats will advance and, under protection of the guns of the fleet.....

**NMP**

**OPH** Land, Make or made the.

**OPI** Land, Look out for, in direction indicated.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>0 P J</b>	Land in sight in direction indicated.	
<b>0 P K</b>	Land, There is too much surf to.	
<b>0 P L</b>	Landing can be effected.	
<b>0 P M</b>	Landing-float has been raised.	
<b>0 P N</b>	Landing-float has sunk.	
	Landing force, Away combatant, for emergency. (See Boat-Book, Art. 72.).....	<b>M Z S</b>
	Landing force, Embark .....	<b>N A H</b>
<b>0 P Q</b>		
	Landing force, Away, lightly equipped for drill ashore .....	<b>M Z Q</b>
	Landing force, Away, lightly equipped for pa- rade .....	<b>M Z P</b>
	Landing force, Away, armed and equipped for service .....	<b>M Z J</b>
	Landing force, Away, armed and equipped for cutting out .....	<b>M Z L</b>
	Landing force, Away, armed and equipped for distant service .....	<b>M Z K</b>
	Landing force, Away, armed and equipped for opposed landing .....	<b>M Z N</b>
	Landing force, Away, armed and equipped for un-opposed landing .....	<b>M Z O</b>
	Landing force, Away, fully equipped for drill ashore .....	<b>M Z R</b>
<b>0 P R</b>	Landing good.	
<b>0 P S</b>	Landing place is in our possession.	
<b>0 P T</b>	Landing place is in possession of enemy (insur- gents or mob).	
	Last run .....	<b>N B O</b>
	Lead, Keep the, going.....	<b>O N Y</b>
	Leaking, Boat is, badly.....	<b>N J L</b>
	Leave the formation and follow at such speed as you can .....	<b>M N R</b>
	Leave the formation and return to your ship...	<b>M N S</b>
	Leave present anchorage before dark.....	<b>N Q E</b>
	Leave present anchorage after dark.....	<b>N Q F</b>
<b>0 P U</b>	Lee side.	
<b>0 P V</b>	Lee bow.	
<b>0 P W</b>	Lee quarter.	
<b>0 P X</b>	Leeward, To.	
	Left, Torpedo is to, of you.....	<b>N E R</b>
	Left, Lie to, of targets (distance in yards may be indicated) .....	<b>N C Y</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Left, Projectiles are bursting to, of target or enemy (yards may be indicated).....	N H P
	Left, Projectiles are falling to, of target or enemy (yards may be indicated).....	N H K
	Liberty party, Go or send ashore for, now or when indicated .....	N R X
O P Y	Liberty men, Wait for.	
	Lie further from targets.....	N C Z
	Lie in rear of firing-line, then follow torpedo..	N C W
	Lie to left of targets (distance in yards may be indicated) .....	N C Y
	Lie to right of targets (distance in yards may be indicated) .....	N C X
	Lie in rear of firing-line.....	N C V
O P Z	Life-boat station, Go to.	
O Q A	Life-boat, Send.	
O Q B	Light-house, Bearing of the, is that indicated.	
O Q C	Lights, Extinguish all.	
O Q D	Lights, Running, are not burning.	
O Q E	Line, Send a.	
	Line of Bearing Change. (See Table beginning F M.)	
	Line, Form, for race.....	N K A
	Line, Form, for race, as soon as race indicated has started .....	N K B
	Line, Formation .....	M L E
	Line, Form, on this or designated boat.....	M L F
	Line, Form, on beam of designated ship.....	M L G
	Line, Ships' flotillas form in, on beam of their respective ships .....	M L J
	Line, Form ships' flotillas in, in column of divisions, on beam of designated ship.....	M L Q
	Line, Form, ships' flotillas in, in column of squadrons, on beam of designated ship.....	M L U
	Line, Ships' flotillas form in, on beam of designated ship .....	M L K
	Line of ships' flotillas, Form, on beam of designated ship .....	M L O
	Line of ships' flotillas, Form, in column of divisions, on beam of designated ship.....	M L P
	Line of ships' flotillas, Form, in column of squadrons, on beam of designated ship.....	M L T
	Line of divisions, Formation.....	M N I
	Line of squadrons, Formation.....	M N H



**Miscellaneous Signals and Alphabetical Reference.—Continued.**

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Line of divisions, Form ships' flotillas in column in, on beam of designated ship.....	<b>MLR</b>
Line of divisions, Form column of ships' flotillas in, on beam of designated ship.....	<b>MLS</b>
Line of squadrons, Form column of ships' flotillas in, on beam of designated ship.....	<b>MLX</b>
Line of squadrons, Form ships' flotillas in column in, on beam of designated ship.....	<b>MLV</b>
*Line of squadrons, Form steamer tactical flotilla in, on beam of designated ship.....	<b>MNC</b>
*Line of divisions, Form steamer tactical flotilla in, on beam of designated ship.....	<b>MND</b>
*Line, Form steamer tactical flotilla in, on beam of designated ship .....	<b>MNB</b>

**Line from Column.**

Line, Form, to the front, right oblique—Guide left (or see signals "Line of Bearing Change," Table beginning <b>FM</b> ).....	<b>MPJ</b>
Line, Form, to the front left oblique—Guide right (or see signals "Line of Bearing Change," Table beginning <b>FM</b> ).....	<b>MPK</b>
Line, Form, to the front (or rear) (rectangular)—1. Head of column right. 2. Boats left (or right) .....	<b>MPY</b>
Line, Form to the front (or rear) (rectangular)—1. Head of column left. 2. Boats right (or left) .....	<b>MPZ</b>

**Line, from Column of Divisions, or Column of Ships' Flotillas.**

Line, Form—Leading ship's flotilla forward, rear ships' flotillas right oblique—Guide left.	<b>MQT</b>
Line, Form—Leading ship's flotilla forward, rear ships' flotillas left oblique—Guide right	<b>MQU</b>
Line, Form, to the front (or rear) (rectangular)—1. Leading ship's flotilla boats right, rear ships' flotillas forward. 2. Boats left....	<b>MRD</b>
Line, Form, to the front (or rear) (rectangular)—1. Leading ship's flotilla boats left, rear ships' flotillas forward. 2. Boats right..	<b>MRE</b>

\* NOTE.—Applicable to steamer tactical flotillas only.



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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- \*Line, Form—Van division (or squadron) forward, rear divisions (or squadron) right oblique—Guide left ..... **MQX**
- \*Line, Form—Van division (or squadron) forward, rear divisions (or squadron) left oblique—Guide right ..... **MQY**
- \*Line, Form, to the front (or rear) (rectangular)—1. Van division (or squadron) boats right, rear divisions (or squadron) forward. 2. Boats left (or right)..... **MRI**
- \*Line, Form, to the front (or rear) rectangular)—1. Van division (or squadron) boats left, rear divisions (or squadron) forward. 2. Boats right (or left)..... **MRJ**

**Line, from Line of Divisions, or Line of Ships' Flotillas.**

- Line, Form, rear boats right oblique—Guide left (or see signals, "Line of Bearing Change," Table beginning **FM**)..... **MRK**
- Line, Form, rear boats left oblique—Guide right (or see signals, "Line of Bearing Change," Table beginning **FM**)..... **MRL**
- Line, Form, to the front (or rear) (rectangular)—1. Head of columns right. 2. Boats left (or right)..... **MRU**
- Line, Form, to the front (or rear) (rectangular)—1. Head of columns left. 2. Boats right (or left) ..... **MRV**

**Line of Divisions, or Line of Ships' Flotillas, from Line.**

- Line of ships' flotillas, Form (oblique)—Right boats of ships' flotillas forward, other boats right oblique ..... **MOR**
- Line of ships' flotillas, Form (oblique)—Left boats of ships' flotillas forward, other boats left oblique ..... **MOS**
- Line of ships' flotillas, Form, to the front (or rear) on the right ship's flotilla (rectangular)—1. Boats right. 2. Ships' flotillas column left (or right)..... **MPB**
- Line of ships' flotillas, Form, to the front (or rear), on the left ship's flotilla (rectangular)—1. Boats left. 2. Ships' flotillas column right (or left) ..... **MPC**

\* NOTE.—Applicable to steamer tactical flotillas only.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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- \*Line of divisions (or squadrons), Form (oblique)—Right boats of divisions forward, other boats right oblique..... **MOV**
- \*Line of divisions (or squadrons), Form (oblique)—Left boats of divisions forward, other boats left oblique..... **MOW**
- \*Line of divisions (or squadrons), Form, to the front (or rear) on the right boats (rectangular)—1. Boats right. 2. Divisions head of columns left (or right)..... **MPF**
- \*Line of divisions (or squadrons), Form, to the front (or rear) on the left boats (rectangular)—1. Boats left. 2. Divisions head of columns right (or left)..... **MPG**

**Line of Divisions, or Line of Ships' Flotillas, from Column.**

- Line of ships' flotillas, Form, to the front—Heads of rear ships' flotillas right oblique—Guide left ..... **MPN**
- Line of ships' flotillas, Form, to the front—Heads of rear ships' flotillas left oblique—Guide right ..... **MPO**
- Line of ships' flotillas, Form, to the front (or rear) (rectangular)—1. Head of column right. 2. Ships' flotillas column left (or right) **MQA**
- Line of ships' flotillas, Form, to the front (or rear) (rectangular)—1. Head of column left. 2. Ships' flotillas column right (or left)..... **MQB**
- \*Line of divisions (or squadrons), Form, to the front—Heads of rear divisions, right oblique—Guide left ..... **MPS**
- \*Line of divisions (or squadrons), Form, to the front—Heads of rear divisions, left oblique—Guide right ..... **MPT**
- \*Line of divisions (or squadrons), form, to the front (or rear) (rectangular)—1. Head of column right. 2. Divisions head of columns left (or right)..... **MQJ**
- \*Line of divisions (or squadrons), Form, to the front (or rear) (rectangular)—1. Head of column left. 2. Divisions head of columns right (or left)..... **MQK**

\* **NOTE.**—Applicable to steamer tactical flotillas only.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Loaded, Boat indicated is, too deeply.....	<b>M V U</b>
	Located, Torpedo is.....	<b>N E T</b>
<b>O Q F</b>	Low, Tide is very, on the bar.	
	Lower, Set screen-s, on targets indicated by numeral-s .....	<b>N F S</b>
	Machine-guns, Boats with, leave the formation and form separately .....	<b>N G T</b>
	Machine-guns, Commence firing with.....	<b>N H A</b>
<b>O Q G</b>	Machinists, Need.	
	Mail, Board the, vessel.....	<b>N W P</b>
	Mail, Bring off .....	<b>N Y Q</b>
	Mail, Get, from guard- or mail-boat.....	<b>N D A</b>
<b>O Q H</b>	Mail has closed.	
	Mail orderly, Go or send ashore for, now or when indicated .....	<b>N R Z</b>
<b>O Q I</b>	Mail, The, has arrived.	
<b>O Q J</b>	Mail will close at hour indicated.	
<b>O Q K</b>	Man overboard.	
<b>O Q L</b>		
	Marine, Land the, detachment-s.....	<b>N A C</b>
	Marines, Brigade of, land.....	<b>N A B</b>
	Marines, Embark .....	<b>N A F</b>
	Marine, Send the, detachment-s to the ship or place designated .....	<b>N A E</b>
	Marines, Exercise boats under oars with crews of, independently .....	<b>M Z D</b>
	Marines, Exercise boats under oars with crews of engineer-force and, independently.....	<b>M Z E</b>
	Marines, Land battalion-s of (or send where indicated) .....	<b>M Z W</b>
<b>O Q M</b>	Market boats, Send.	
<b>O Q N</b>	Market, Is there a.	
	Mark the channel by anchoring either side....	<b>O A C</b>
	Mark the channel by anchoring in the fairway.	<b>O A B</b>
	Mark the target-s indicated by numeral-s.....	<b>N E B</b>
	Masts, Step .....	<b>M V W</b>
	Masts, Unstep, before coming alongside.....	<b>M V Y</b>
	Masts, Unstep .....	<b>M V X</b>
	Medical assistance, Need .....	<b>N S K</b>
	Medical officer is dead (or killed).....	<b>O E M</b>
	Men, Have, ashore who cannot reach us on account of weather.....	<b>N S A</b>
<b>O Q P</b>	Men, How many, have you?	
<b>O Q R</b>	Miles, How many?	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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<b>0 Q S</b>	Mine cable, Landing-point of, locate-d.	
<b>0 Q T</b>	Mine-field, Attack the, by dragging.	
<b>0 Q U</b>	Mine-field, Buoy out a channel through.	
	Mine-field, Channel is buoyed out through the	<b>0 A J</b>
	Mines, Channel is obstructed with.....	<b>0 A G</b>
<b>0 Q V</b>	Mines, Make all preparations to lay.	
<b>0 Q W</b>	Mines, Plant, in the entrance channel-s (submerged depth in feet may be indicated by numeral).	
<b>0 Q X</b>	Mines, Plant, <i>outside the channel</i> (submerged depth in feet may be indicated by numeral).	
	Mines, Recover-ed .....	<b>0 U K</b>
	Missing boats, Go in search of.....	<b>0 W Y</b>
	Missing, Search for the.....	<b>0 W X</b>
	Motions of senior officer, Pay great attention to, during night.....	<b>N T U</b>
<b>0 Q Y</b>	Native boats, Employ, to go through surf.	
<b>0 Q Z</b>	Navigation, The, is difficult.	
<b>0 R A</b>	Nearer, Come.	
<b>0 R B</b>	Nearer, Go.	
	Night practice, Set screens for, on target-s indicated by numeral-s.....	<b>N F P</b>
<b>0 R C</b>	Numeral signal following, The, represents thousands. A second numeral signal following represents hundreds.	
	Oars, Assist sails with.....	<b>M U X</b>
	Oars, Boat the .....	<b>M V Z</b>
	Oars, Get out .....	<b>M W A</b>
	Oars, Get ready .....	<b>M W B</b>
	Oars, Get up .....	<b>M W C</b>
	Oars, Give way stronger (steamers go ahead faster) .....	<b>M W E</b>
	Oars, Give way (steamers go ahead).....	<b>M W D</b>
	Oars, Lay on (steamers stop).....	<b>M W F</b>
	Oars, Let fall .....	<b>M W G</b>
	Oars, Muffle, the .....	<b>M W I</b>
	Oars, Out and pull.....	<b>M W H</b>
<b>0 R D</b>	Oars, Require number of indicated.	
	Oars, Toss .....	<b>M W J</b>
<b>0 R E</b>	Obeysignal.	
	Observe interval more carefully.....	<b>M T Y</b>
<b>0 R F</b>	Obstructions can be removed.	
<b>0 R G</b>	Obstructions have been removed.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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Obtain all intelligence possible..... **O N R**

**O R H****O R I**

Officers, Bring off..... **N Y R**

Offshore, Keep further..... **O N Z**

Open fire (under negative "cease firing").... **N G W**

Open interval (number of yards may be indicated by numeral)..... **M T V**

Orders, Act in strict accordance with previous **N L U**

Orders, Await ..... **N T Z**

Orders, Await, until date and hour indicated.. **N U A**

**O R J**

Orders have been sent.

**O R K**

Orders have been received.

Order, Steering-gear out of..... **N J R**

Order, Inverted ..... **M N V**

Order, Natural ..... **M N U**

Order of boats at finish indicate-d by distinguishing-pennants ..... **N K W**

**O R L**

Order, Can preserve.

**O R M**

Order, Preserve.

Order of ships' flotillas in formation is as shown by their ships' distinguishing-pennants **M N L**

**O R N**

Orders will be carried out.

Over, Range is (yards may be indicated)..... **N H R**

Paint out hits on all or on target-s indicated by numeral-s ..... **N C U**

Parade, Away landing-force lightly equipped for ..... **M Z P**

**O R P**

Parole captured person-s.

Pass, As we, near target..... **N B T**

Pass, As we, near you..... **N B U**

Pass, Flotilla-s will, under the stern of this or designated ship ..... **M W K**

**O R Q**

Passes, Grant no, without authority of senior officer.

**O R S**

Patrol around the fleet at a distance from it as indicated in miles by numeral.

**O R T**

Patrol, Picket boats, in accordance with instructions already given.

**O R U**

Patrol outside entrance of harbor (bay, river, sound).

**O R V**

Patrol the beach.

**O R W**

Patrol the coast.

**O R X**

Patrol the town.



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O R Y</b>	Pay out more tow-line.	
<b>O R Z</b>	Picket duty, Take.	
<b>O S A</b>	Picket boats, Detail.	
<b>O S B</b>	Picket boats, Double the.	
<b>O S C</b>	Pickets, Double the, on shore.	
	Picket boats patrol in accordance with instruction already given.....	<b>O R T</b>
<b>O S D</b>	Picket boats return to their ship-s now or at hour indicated.	
<b>O S E</b>	Plan, Follow, as indicated by numeral.	
<b>O S F</b>		
<b>O S G</b>	Plan of attack, Conform strictly to the.	
<b>O S H</b>	Plentiful, Fish are.	
	Poles, Erect, on target-s requiring, now or when indicated .....	<b>N D C</b>
	Poles, I have number of, indicated by numeral	<b>N D E</b>
	Poles, Require .....	<b>N D B</b>
<b>O S I</b>	Port, Proceed into.	
<b>O S J</b>	Possession, Hold.	
<b>O S K</b>	Possession has been taken.	
<b>O S L</b>	Possession, Keep, of the town.	
<b>O S M</b>	Possession, Take, of the town.	
<b>O S N</b>	Possession, Arrange for taking, of the place.	
	Postpone dinner until hour indicated.....	<b>O G H</b>
<b>O S P</b>	Postpone the attack until time indicated.	
<b>O S Q</b>	Postpone operations.	
	Postpone the attack.....	<b>N S Z</b>
	Postponed, Combined attack is, until time indicated .....	<b>N T J</b>
	Position, Boat-s joining formation will take, astern of designated boat or flotilla.....	<b>M U P</b>
	Position, Can keep, at present speed.....	<b>M U O</b>
	Position, Drop back into.....	<b>M U W</b>
	Position, Get into, for starting.....	<b>N K F</b>
	Position, Ship's flotilla-s take, in order indicated by ships' (or divisions') distinguishing-pennants	<b>M U Q</b>
	Position, Get up into.....	<b>M U V</b>
	Position in formation, Boats' (or ships' flotillas) indicated will <i>interchange</i> .....	<b>M U R</b>
	Position or station, Resume.....	<b>M U T</b>
	Position, Ship's flotilla-s indicated take, as indicated or previously arranged.....	<b>M U N</b>
	Position, Take .....	<b>M U L</b>



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

LETTERS		LETTERS
	Position, Take, on the torpedo range about yards indicated from the firing point.....	<b>N E Y</b>
<b>O S R</b>	Prisoners, Embark the.	
<b>O S T</b>	Prisoners, Release.	
	Prize, Abandon the .....	<b>N L B</b>
<b>O S U</b>	Prize, Take possession of the.	
<b>O S V</b>	Prize, Bring the, to port.	
	Prize, Destroy .....	<b>O F U</b>
	Prize, Destroy, if you cannot get her off.....	<b>O F W</b>
	Prize, The, has been abandoned.....	<b>N L G</b>
<b>O S W</b>	Prize is unseaworthy.	
<b>O S X</b>	Prize, Set the, on fire.	
<b>O S Y</b>	Preserve captured property.	
<b>O S Z</b>	Proceed, Must, immediately.	
<b>O T A</b>	Proceed on duty or service assigned.	
<b>O T B</b>	Proceed, Ready to, on service ordered at hour indicated.	
<b>O T C</b>		
	Proceed, Ready to, under steam.....	<b>M S E</b>
	Proceed, Unable to, without repairs.....	<b>N J I</b>
	Proceed under steam.....	<b>M R Z</b>
	Procure necessary articles .....	<b>N R O</b>
	Projectiles are bursting beyond target or enemy (yards may be indicated).....	<b>N H M</b>
	Projectiles are bursting short of target or enemy (yards may be indicated).....	<b>N H L</b>
	Projectiles are bursting to right of target or enemy (yards may be indicated).....	<b>N H O</b>
	Projectiles are bursting to left of target or enemy (yards may be indicated).....	<b>N H P</b>
	Projectiles are falling beyond target or enemy (yards may be indicated).....	<b>N H G</b>
	Projectiles are falling short of target or enemy (yards may be indicated).....	<b>N H I</b>
	Projectiles are falling to right of target or enemy (yards may be indicated).....	<b>N H J</b>
	Projectiles are falling to left of target or enemy (yards may be indicated).....	<b>N H K</b>
	Projectiles, Report fall of.....	<b>N H T</b>
	Promptly, Act.....	<b>N M C</b>
<b>O T D</b>	Propeller has lost blade-s.	
<b>O T E</b>	Propeller is lost.	
	Propeller is foul .....	<b>N J Q</b>
	Proper interval, Take (yards may be indicated by numeral) .....	<b>M T X</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O T F</b>	Property, Collect captured.	
<b>O T G</b>	Property, Destroy captured.	
<b>O T H</b>	Property, Dispose of captured, to best advantage.	
<b>O T I</b>	Property, Preserve captured .....	<b>O S Y</b>
<b>O T J</b>	Property, What disposition shall be made of captured?	
<b>O T K</b>	Protect public property. Protests, Come within hail and record (if any) Protests to make .....	<b>N K S</b> <b>N K R</b>
<b>O T L</b>	Provisions, Can spare some.	
<b>O T M</b>	Provisions, Endeavor to procure.	
<b>O T N</b>	Provisions, Land cooked, for the number of days indicated.	
<b>O T P</b>	Provisions, Short of.	
<b>O T Q</b>	Provisions, Want, landed.	
<b>O T R</b>	Prudence, Act with great.	
<b>O T S</b>	Public property, Assist in saving. Pulling boats make best of your way to ship-s. Pull hard .....	<b>M W P</b> <b>M W O</b> <b>M W N</b> <b>N K I</b>
	Pull easy .....	
	Pulling race .....	
	Race, Form line for, as soon as race indicated has started .....	<b>N K B</b> <b>N K A</b> <b>N K C</b>
	Race, Form line for.....	
	Race, Ready for .....	
	Raft-s, Dismantle the, indicated by numeral, now or when indicated.....	<b>N D H</b> <b>N D F</b>
	Raft-s, How long will it take to repair.....	
	Raft indicated by numeral is beyond repair with my facilities .....	<b>N D K</b> <b>N D I</b> <b>N D G</b>
	Raft-s indicated by numeral require repair....	
	Raft-s, Report condition of.....	
<b>O T U</b>	Railroad is in our possession.	
	Range is about right.....	<b>N H S</b>
<b>O T V</b>	Range, Can get within. Range is short (yards may be indicated)..... Range is over (yards may be indicated)..... Rate, Try, of sailing.....	<b>N H Q</b> <b>N H R</b> <b>M Y P</b>
<b>O T W</b>	Rations, How many days, have you?	
<b>O T X</b>	Rations, Number of days, indicated, require.	
<b>O T Y</b>	Ready.	
<b>O T Z</b>		

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>0 U A</b>	Ready, Flotilla is, for service.	
<b>0 U B</b>	Ready, Report when.	
<b>0 U C</b>	Ready, The expedition is, to move.	
<b>0 U D</b>	Ready, Will be, at hour indicated.	
	Ready for action .....	<b>N L V</b>
	Ready for race .....	<b>N K C</b>
<b>0 U E</b>	Rear, Bring up the.	
<b>0 U F</b>	Recall, Hoist general.	
	Recall, or leave off chase.....	<b>0 A W</b>
<b>0 U G</b>	Reconnoiter enemy's position.	
<b>0 U H</b>	Reconnoiter the port in view, or the one indicated, and bring off all intelligence procurable without delay.	
<b>0 U I</b>	Reconnoitered, Have, the enemy.	
<b>0 U J</b>	Reconnoitering party, Send.	
<b>0 U K</b>	Recover-ed mines.	
	Recover-ed torpedo .....	<b>N E Z</b>
<b>0 U L</b>	Recovered, How many torpedoes are.....	<b>N F E</b>
	Recount hits on target-s indicated by numeral-s	<b>N C L</b>
	Reduce, Steamers, speed.....	<b>M Y C</b>
<b>0 U M</b>	Re-embark.	
<b>0 U N</b>	Re-embark, Am, or are, ready to.	
	Reef sails .....	<b>M W Q</b>
	Reef-s, Shake out.....	<b>M W R</b>
	Reefed, Sails are badly.....	<b>M W S</b>
<b>0 U P</b>	Re-inforce attacking party.	
<b>0 U Q</b>	Re-inforcements have been dispatched.	
<b>0 U R</b>	Re-inforcements, Need.	
<b>0 U S</b>	Refugees, Bring on board.	
<b>0 U T</b>		
<b>0 U V</b>	Refugees, What disposition shall be made of?	
	Refugees, Deliver, to proper authorities.....	<b>0 F J</b>
<b>0 U W</b>		
<b>0 U X</b>	Refuse an armistice.	
<b>0 U Y</b>	Refuse the proposition.	
<b>0 U Z</b>	Release captured persons.	
<b>0 V A</b>	Relief is expected.	
<b>0 V B</b>	Relief, Wait for.	
	Relief repair boat, Require.....	<b>N D P</b>
	Relief Steamer, Require .....	<b>N D O</b>
	Relief crew, Require, for steamer.....	<b>N D L</b>
	Relief crew, Require, for repair-boat.....	<b>N D M</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Relief crews, Come alongside for, now or when indicated .....	N B Q
O V C	Remedy the defects.	
O V D	Rendezvous, Open sealed.	
O V E	Rendezvous, Proceed to the.	
	Rendezvous, Boats return to the.....	N Y E
	Repair the targets .....	N E C
	Repair, How long to, the target-s.....	N E D
	Repair-boat, Require relief .....	N D P
	Repair-boat, Come alongside with, now or when indicated .....	N B R
O V F		
	Repair, Raft-s indicated by numeral-s require-s	N D I
	Repair, Hours to, damage indicated by numeral .....	N J G
	Repair, Raft indicated by numeral is beyond, with my facilities .....	N D K
	Repair raft-s indicated by numeral-s, now or when indicated .....	N D R
	Repairs to raft-s can be completed in minutes indicated by numeral.....	N D J
O V G	Repairs, Can make, with own force.	
O V H	Repairs are progressing well.	
	Repairs are completed .....	N D S
	Replace buoy-s .....	N C D
	Report fall of projectiles.....	N H T
	Require poles .....	N D B
	Require relief-steamer .....	N D O
	Require relief-crew for repair-boat.....	N D M
	Require relief-crew for steamer.....	N D L
	Require services of an engineer officer.....	O J L
	Require assistance in making repairs.....	N J H
	Require more screens for caliber indicated by numeral .....	N F K
	Reserve speed, Steam at.....	M T B
	Reserves, Advance .....	N M F
O V I	Reserve, Flotilla designated will remain in.	
	Reserves are advancing.....	N M R
O V J	Retire, Flotilla will.	
O V K	Retreat.	
	Retreating, Enemy is .....	O I Z
O V L	Return to ship at hour indicated.	
	Return to ship after taking down screens.....	N D T
	Return to ship leaving screens set.....	N D U
	Return to ship leaving screens furled.....	N D V

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Return to ship after shifting screens as indicated .....	N D W
	Return, Artillery boats, to their ships or to ships indicated .....	N G Q
O V M	Return the fire.	
	Return, Boats without guns, to their ships....	N G V
	Return, Flotillas, to their ships or ships indicated .....	N A Y
O V N	Revolvers, Require.	
O V P	Rifles, Require.	
	Rifle-pits, Shell the.....	N H W
	Right, Torpedo is to, of you.....	N E S
	Right, Range is about.....	N H S
	Right, Shell (or shrapnel) burst about.....	N H X
	Right, Lie to, of targets (distance in yards may be indicated) .....	N C X
	Right, Projectiles are falling to, of target or enemy (yards may be indicated).....	N H J
	Right, Projectiles are bursting to, of target or enemy (yards may be indicated).....	N H O
O V Q	Riot, There is a, on shore.	
O V R	Risk, Do not run.	
O V S		
O V T	Risk, Do not run great, on service ordered.	
O V U	Risk, Great.	
O V W	Risk, Without any.	
O V X	River, Proceed down the.	
O V Y	River, Proceed up the.	
	Row guard during the night.....	O M F
	Rowing of men, Pay attention to.....	M W T
O V Z	Rudder is disabled.	
O W A	Rudder is sprung.	
	Rudderless race .....	N K J
	Run, Torpedo did .....	N E K
	Run, Make shorter .....	N I P
	Run, Make longer .....	N I Q
	Run, After next .....	N B K
	Run, After this .....	N B J
	Run, After last .....	N B I
	Run before last .....	N B M
	Run, Last .....	N B O
O W B	Safe, It is, to advance.	
O W C	Safe, It is, to go alongside.	
O W D	Safe, The or your position is.	
O W E	Safely, Boats can land,	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Sails are badly set.....	<b>MWZ</b>
<b>OWF</b>	Sail, Boats ahead shorten.	
<b>OWG</b>	Sail, Boats astern make more.	
<b>OWH</b>	Sail immediately.	
<b>OVI</b>	Sail, Intend to, at hour indicated.	
	Sail, Make .....	<b>MWU</b>
	Sail, Shorten .....	<b>MWV</b>
	Sail, Take in .....	<b>MWX</b>
	Sail, You are carrying too much.....	<b>MWY</b>
<b>OWJ</b>	Sailing-launch, Send.	
	Sailing-launches .....	<b>NJX</b>
<b>OWK</b>	Sailing orders, The fleet or the ship-s designated is (are) under, now or at the hour indicated.	
	Sailing race .....	<b>NKL</b>
	Sailing race with steamers.....	<b>NKM</b>
<b>OWL</b>	Sails, Bend.	
<b>OWM</b>	Sails, Unbend.	
<b>OWN</b>	Sand, Get a supply of.	
<b>OWP</b>		
<b>OWQ</b>	Sand, Bring off load of.	
	Scouting distance, Take. (Number of quarter miles may be indicated by numeral.).....	<b>MTQ</b>
	Scouting interval, Take (number of miles may be indicated by numeral).....	<b>MUA</b>
	Screens, Boat-target, set on target-s indicated by numeral-s .....	<b>NGI</b>
	Screen-s, Bring, to ship from target-s indicated by numeral-s .....	<b>NFH</b>
	Screen-s, Furl, on target-s indicated by numerals .....	<b>NFI</b>
	Screen-s, Require more, for caliber indicated by numeral .....	<b>NFK</b>
	Screen-s, Set, flat on target-s indicated by numeral-s .....	<b>NFM</b>
	Screen-s, Set, for battle practice.....	<b>NFQ</b>
	Screen-s, Set, for caliber indicated by numeral-s .....	<b>NFO</b>
	Screen-s, Set, for night practice on target-s indicated by numeral-s .....	<b>NFP</b>
	Screen-s, Set, higher on target-s indicated by numeral-s .....	<b>NFR</b>
	Screen-s, Set, lower on target-s indicated by numeral-s .....	<b>NFS</b>



**Miscellaneous Signals and Alphabetical Reference.—Continued.**

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Screen-s, Set, on target-s indicated by numeral-s .....	N F L
Screen-s, Set, properly on target-s indicated by numeral-s .....	N F T
Screen-s, 3-pounder, Set, on target-s indicated by numeral-s .....	N G H
Screen-s, 6-pounder, Set, on target-s indicated by numeral-s .....	N G E
Screen-s, 3-inch, Set, on target-s indicated by numeral-s .....	N G D
Screen-s, 4-inch, Set, on target-s indicated by numeral-s .....	N G C
Screen-s, 5-inch, Set, on target-s indicated by numeral-s .....	N G B
Screen-s, 6-inch, Set, on target-s indicated by numeral-s .....	N G A
Screen-s, 7-inch, Set, on target-s indicated by numeral-s .....	N F Z
Screen-s, 8-inch, Set, on target-s indicated by numeral-s .....	N F Y
Screen-s, 12-inch, Set, on target-s indicated by numeral-s .....	N F X
Screen-s, Shift, on target-s indicated by numeral-s .....	N F U
Screen-s, Take down, on target-s indicated by numeral-s .....	N F V
Screen-s, Take down, on target-s indicated by numeral-s and hold for inspection.....	N F W

<b>O W R</b>	Sea, A very heavy.
<b>O W S</b>	Sea, Not much.
<b>O W T</b>	Sea, Prepare for.
<b>O W U</b>	Sea, Too much, on the bar for crossing.
<b>O W V</b>	Sea, When the, has gone down.
	Seamen, Brigade of, land.....
	Seamen, Embark .....
	Seamen, Land battalions of, or send where indicated .....
	Search, Abandon the .....
<b>O W X</b>	Search for the missing.
<b>O W Y</b>	Search, Go in, of missing boats.
	Search for torpedo between ship and target or in direction indicated from you.....
	Search the boat-s (may be indicated).....
<b>O W Z</b>	Send prisoners to this or designated ship.
<b>O Y A</b>	Senior officer.

M Z Y

N A G

M Z V

N L C

N F A

N Y H

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>O Y B</b>	Senior officer's boat, Officers commanding boats repair on board.	
<b>O Y C</b>	Senior officer's boat, Repair on board, officers indicated.	
	Set the buildings on fire.....	<b>N Y U</b>
<b>O Y D</b>	Shaft broken.	
	Sheets are too flat aft.....	<b>M Y A</b>
<b>O Y E</b>	Sheets, Trim aft.	
	Shell (or shrapnel) burst about right.....	<b>N H X</b>
	Shell, Open fire with.....	<b>N G X</b>
	Shell the beach .....	<b>N H U</b>
	Shell the woods .....	<b>N H V</b>
	Shell the rifle-pits .....	<b>N H W</b>
<b>O Y F</b>	Shelter boat-s.	
<b>O Y G</b>	Sheltered, Boat-s is (are).	
	Shift screen-s on target-s indicated by numeral-s .....	<b>N F U</b>
	Ships' flotilla-s, Form, according to instructions .....	<b>M N G</b>
	Ships' flotilla-s, Form, for service as previously arranged (or instructed).....	<b>M N F</b>
	Ships' flotilla-s, Form, for service indicated....	<b>M N E</b>
	Ships' flotilla-s column right (8 points unless otherwise directed) .....	<b>M O G</b>
	Ships' flotilla-s column left (8 points unless otherwise indicated) .....	<b>M O H</b>
<b>O Y H</b>	Shoaled, Water has suddenly.	
<b>O Y I</b>	Shoals, You are approaching.	
<b>O Y J</b>	Shoal, Water is too.	
<b>O Y K</b>	Shore is dangerous.	
<b>O Y M</b>	Shore is bold.	
<b>O Y N</b>	Shore, Very deep close to.	
	Short, Projectiles are falling, of target or enemy (yards may be indicated).....	<b>N H I</b>
	Short, Projectiles are bursting, of target or enemy (yards may be indicated).....	<b>N H L</b>
	Short, Range is (yards may be indicated).....	<b>N H Q</b>
	Shrapnel, Open fire with.....	<b>N G Y</b>
<b>O Y P</b>	Sick, Bring off.	
<b>O Y Q</b>	Sick, Send, or wounded to place or vessel indicated.	
<b>O Y R</b>	Sick-list is increasing.	
<b>O Y S</b>	Side curtains, Lace down.	
	Side, Steam on port.....	<b>N I J</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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Side, Steam on starboard..... **N I H**Side, Torpedo is this, of you..... **N E Q**Sight of, Torpedo came up but has been lost.. **N E H****O Y T** Silence, Preserve strictest.**O Y U** Silence, Preserve strict during night.**O Y V** Signal, Answer, by wigwag or semaphore.**O Y W** Signal distance, Boats chasing keep in.**O Y X** Signal flags cannot be distinguished where now hoisted.**O Y Z** Signal, Last, is annulled.**O Z A** Signal more rapidly.**O Z B** Signal more slowly.Signal, Obey ..... **O R E****O Z C** Signal, Repeat last.**O Z D** Signal, Report by.**O Z E** Signal, The, is not understood, though flags are distinguished.**O Z F** Signal, The, is understood.**O Z G** Signal, Unable to make out last.**O Z H** Signalling, Cease.**O Z I****O Z J** Signals, Answer promptly.**O Z K** Signals, Boat, use.**O Z L** Signals, Give more attention to.**O Z M** Signals, You are reading, badly.**O Z N** Signals, You are making, badly.**O Z P** Signal-s, You have misunderstood.**O Z Q** Signals, Repeat (under negative, discontinue repeating signals).**O Z R** Signals, Sound, use.**O Z S** Signals, Storm, are displayed.Sinking, Boat is..... **N J O****O Z T** Slack water is at hour indicated.**O Z U** Slack water, Wait for.Slow speed, Steam at..... **M S W**Slower, Go ..... **N I K****O Z V** Smuggling is being carried on.**O Z W** Sound frequently and report any change.**O Z X** Sound, Go ahead and, reporting as you proceed.**O Z Y** Sound immediately and report depth in feet.**R A B** Sound in the direction indicated.**R A C** Sound, Proceed on bearing indicated to, and lookout.

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>R A D</b>	Soundings, Have obtained (number of feet indicated).	
<b>R A E</b>	Soundings, I have taken (depth obtained is indicated in feet by numeral; numeral under "negative," no bottom at indicated depth).	
<b>R A F</b>	Soundings, Take, at intervals as indicated in minutes by numeral.	
	Speed, Can make, as indicated in quarter-knots by numeral .....	<b>M S Q</b>
	Speed, Can make standard.....	<b>M S T</b>
	Speed, Decrease, a little.....	<b>M T E</b>
	Speed, Steam at full.....	<b>M T A</b>
	Speed, Steam at half.....	<b>M S X</b>
	Speed, Increase, a little.....	<b>M T D</b>
	Speed, Make all, possible.....	<b>M S U</b>
	Speed, Observe, more carefully.....	<b>M T F</b>
	Speed of this or the boat designated is as indicated in quarter-knots by numeral.....	<b>M T C</b>
	Speed, Steam at reserve.....	<b>M T B</b>
	Speed, Steam at slow.....	<b>M S W</b>
	Speed, Standard, is as indicated in quarter-knots by numeral.....	<b>M S R</b>
	Speed, Steam at standard.....	<b>M S Y</b>
	Speed, Steam at, as indicated in quarter-knots by numeral .....	<b>M S P</b>
	Speed, Steerage-way, maintain .....	<b>M S V</b>
<b>R A G</b>	Spy (or spies), Have captured.	
	Standard speed, Can make.....	<b>M S T</b>
	Standard speed, Steam at.....	<b>M S Y</b>
	Station or position, Resume.....	<b>M U T</b>
<b>R A H</b>	Station, Take, as soon as possible.	
	Steam, Keep up .....	<b>M S D</b>
	Steam, Proceed under .....	<b>M R Z</b>
	Steam, Ready to proceed under.....	<b>M S E</b>
	Steam, Get up, on steam launches.....	<b>M R Y</b>
<b>R A I</b>	Steam, Have, at hour indicated.	
<b>R A J</b>	Steam launch, Send.	
<b>R A K</b>	Steam launches with guns mounted, Send.	
	Steam pressure is (pounds indicated by numeral) .....	<b>M S A</b>
	Steam pressure, Can carry (pounds indicated by numeral) .....	<b>M S B</b>
	Steamer race .....	<b>N K O</b>
	Steamer, Require relief.....	<b>N D O</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>RA L</b>	Steamers engaged in tactical drill, return to their ships.	
	Steamer tactical drill, Away steamers equipped for, to form where indicated.....	<b>M Z T</b>
<b>RA M</b>	Steamer, Look out for a.	
	Steamers .....	<b>N J Y</b>
	Steamers increase speed .....	<b>M Y B</b>
	Steamers reduce speed .....	<b>M Y C</b>
	Steamers return to your ship-s or to ship designated .....	<b>M Y D</b>
<b>RA N</b>	Steer more to starboard.	
<b>RA O</b>	Steer more to port.	
<b>RA P</b>		
<b>RA Q</b>	Steer to head current more.	
	Steerageway speed, maintain.....	<b>M S V</b>
	Steering-gear out of order.....	<b>N J R</b>
	Stern, Come under the.....	<b>M V G</b>
	Stern all .....	<b>M Y E</b>
	Stern, Anchor by the.....	<b>N P O</b>
	Stop .....	<b>M T G</b>
	Stove, Boat is.....	<b>N J K</b>
	Straighten out the tow-s.....	<b>N I Z</b>
<b>RA S</b>	Stranded vessel can be got off.	
	Stroke, Keep .....	<b>M Y F</b>
	Stroke, Take quicker .....	<b>M Y G</b>
	Stroke, Take longer .....	<b>M Y H</b>
	Submarine-s, Accompany the.....	<b>N L T</b>
<b>RA T</b>	Submarines are seen here or in the direction indicated.	
<b>RA U</b>	Submarines have been sighted (bearing may follow).	
<b>RA V</b>	Successful, Have been.	
	Sunk, Torpedo has.....	<b>N E O</b>
<b>RA W</b>	Supplies, Will send, at hour indicated.	
<b>RA X</b>	Surf-boat is damaged.	
	Surf, Do not risk boats in.....	<b>N Y C</b>
<b>RA Y</b>	Surf, Employ native boats to go through.	
<b>RA Z</b>	Surf, Heavy, is running on the bar (or on the beach).	
<b>RBA</b>	Surf is too heavy.	
<b>RBC</b>	Surf, There is very little.	
	Surf, There is too much, to land.....	<b>O P K</b>
<b>RBD</b>	Surprise the enemy if possible.	
<b>RBE</b>	Surprise, Guard against a.	



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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<b>R B F</b>	Suspend operations.	
	Swamped, Boat-s is (are).....	<b>N Y B</b>
	Sweep for torpedo.....	<b>N F B</b>
<b>R B G</b>	Swing, There is room to.	
	Tack in succession .....	<b>M Y K</b>
	Tack together .....	<b>M Y O</b>
	Tack, Port .....	<b>M Y L</b>
	Tack, Starboard .....	<b>M Y N</b>
	Tack immediately .....	<b>M Y J</b>
<b>R B H</b>	Tack or wear at discretion.	
	Tactical flotilla, Form steamer, in line of squadrons on beam of designated ship.....	<b>M N C</b>
	Tactical flotilla, Form steamer, in line of divisions on beam of designated ship.....	<b>M N D</b>
	Tactical flotilla, Form steamer, in line, on beam of designated ship.....	<b>M N B</b>
	Tactical flotilla, Form steamer, in column of divisions, on beam of designated ship.....	<b>M N A</b>
	Tactical flotilla, Form steamer, in column of squadrons on beam of designated ship.....	<b>M L Z</b>
	Tactical flotilla, Form steamer, in column on beam of designated ship.....	<b>M L Y</b>
	Target-s, After visiting .....	<b>N B L</b>
	Target-s, Keep clear of, or gun-fire.....	<b>N D Y</b>
	Target-s, How long to repair the.....	<b>N E D</b>
	Target-s, Mark the, indicated by numeral-s....	<b>N E B</b>
<b>R B I</b>	Target is destroyed.	
	Target-s, Repair the .....	<b>N E C</b>
	Target-s, Set parallel to firing-line, indicated..	<b>N E A</b>
	Target-s, Visit .....	<b>N D Z</b>
<b>R B J</b>	Telegraph cable, Ascertain landing-place of.	
<b>BBK</b>	Telegraph cable, Cut or destroy, if possible.	
<b>R B L</b>	Telegraph cable-s, Cut the.	
<b>R B M</b>		
	Telegraph cable-s, Drag for.....	<b>O I C</b>
<b>R B N</b>	Telegraph, Communication by.	
<b>R B O</b>	Telegraph cable is cut (or have cut).	
<b>R B P</b>	Telegraph lines are in our possession.	
<b>R B Q</b>	Telegraph wires, Cut the.	
<b>R B S</b>	Telegraph station, Attack the enemy's.	
<b>R B T</b>	Telegraph station, Take possession of.	
<b>R B U</b>	Telegraphic communication.	
<b>R B V</b>	Tide, Ebb.	
<b>R B W</b>	Tide, Flood.	



Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

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<b>R B X</b>	Tide is very low on the bar.	
<b>R B Y</b>	Tide, Take advantage of the.	
<b>R B Z</b>	Tide, Wait for favorable.	
<b>R C A</b>	Tide, What is the state of the?	
<b>R C B</b>	Tideway, Keep out of the.	
<b>R C D</b>	Time, How much.	
	Time signals. (See Table beginning <b>L V.</b> )	
	Torpedo, Buoy (or buoyed) position where, sank .....	<b>N B Z</b>
	Torpedo breached at about yards (indicated by numeral) from the ship.....	<b>N E F</b>
	Torpedo-es, Bring alongside .....	<b>N E G</b>
	Torpedo came up but has been lost sight of....	<b>N E H</b>
	Torpedo curved to left.....	<b>N E I</b>
	Torpedo curved to right .....	<b>N E J</b>
	Torpedo did run .....	<b>N E K</b>
	Torpedo, Follow ship on range then follow....	<b>N C E</b>
	Torpedo, Follow the .....	<b>N E L</b>
	Torpedoes, How many, are recovered.....	<b>N F E</b>
	Torpedo has sunk .....	<b>N E O</b>
	Torpedo is beyond you.....	<b>N E P</b>
	Torpedo is this side of you.....	<b>N E Q</b>
	Torpedo is to left of you.....	<b>N E R</b>
	Torpedo is to right of you.....	<b>N E S</b>
	Torpedo is located .....	<b>N E T</b>
<b>R C E</b>	Torpedo boats have been sighted; bearing may follow.	
	Torpedo passed ahead of target (yards may be indicated by numeral) .....	<b>N E U</b>
	Torpedo passed astern of target (yards may be indicated by numeral).....	<b>N E V</b>
	Torpedo range, Keep clear of the.....	<b>N E W</b>
	Torpedo range, Pick up the, and return to ship	<b>N E X</b>
	Torpedo, Recover-ed .....	<b>N E Z</b>
	Torpedo, Search for, between ship and target or in direction indicated from you.....	<b>N F A</b>
	Torpedo, Sweep for .....	<b>N F B</b>
	Torpedo, You are heading for.....	<b>N F D</b>
	Torpedo, Where is .....	<b>N F C</b>
	Tow-s, Straighten out the.....	<b>N I Z</b>
	Tow-s, Stop and cast off, preserving formation	<b>N J B</b>
	Tow-s, Cast off the.....	<b>N J A</b>
	Tow-line, Boats indicated rectify length of....	<b>N I R</b>

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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	Tow-lines, Boats in tow cast off, beginning with rear boat-s .....	N I S
	Tow-lines, Length of (number of fathoms indicated) .....	N J C
<b>R C F</b>	Tow-line, Stand by to take.	
	Tow, Send boats to, or assist the boat or vessel requiring aid .....	N J D
	Towing, Boats of each ship make fast to their steamers, in proper order, ready for .....	N I T
	Towing-steamer, Send, alongside now or when indicated .....	N B S
	Towing, Use two steamers for .....	N J E
<b>R C G</b>	Tow, Take lighter-s in.	
	Tow the boat-s or vessels to the position indicated (or desired) .....	N I Y
	Tow, Take the boat, lighter, or vessel indicated in .....	N I X
	Tow, Steamers, boats to their respective ships	N I U
<b>R C H</b>	Tow, Prepare to be taken in.	
<b>R C I</b>	Tow, Want steamer to assist to.	
<b>R C J</b>		
<b>R C K</b>	Tow coal-vessel or lighter alongside this or designated ship.	
<b>R C L</b>	Transportation, Destroy the enemy's.	
	Troops on shore are in need of ammunition....	N O V
	Troops, Assist, to land .....	N S E
	Trophy (or cup), Send to vessel indicated and receive .....	N K U
	Try rate of sailing .....	M Y P
	Umpire, Target, come on board now or when indicated .....	N D X
<b>R C M</b>	Unable to communicate otherwise than by signal.	
	Unable to proceed without repairs .....	N J I
<b>R C N</b>	Underway, Keep or continue.	
	Unfit, Boat-s, for further service until hoisted aboard .....	N Y I
<b>R C O</b>	Uniform, Boat-s crew not in proper.	
<b>R C P</b>	Uniform, Get or keep crew-s in.	
<b>R C Q</b>	Vigorously, Act, and without unnecessary delay.	
	Visit targets .....	N D Z
<b>R C S</b>	Wait for re-inforcements.	

Miscellaneous Signals and Alphabetical Reference.—*Continued.*

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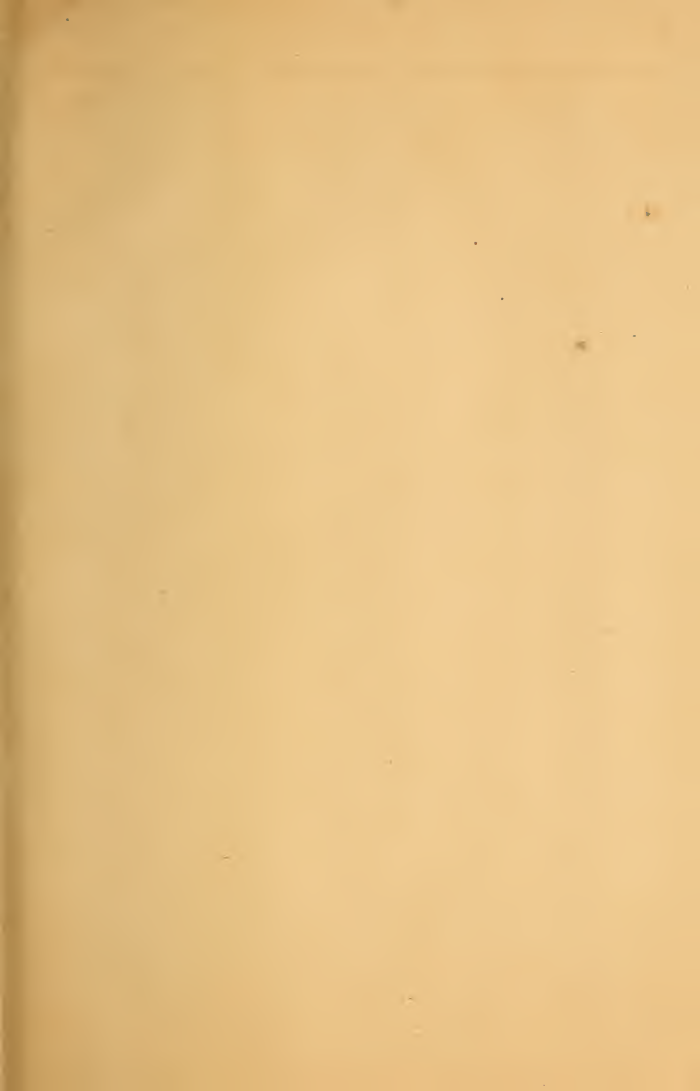
<b>R C T</b>	Wait at landing until as late as hour indicated unless ready to return sooner.	
	Wait for answer .....	<b>N Q K</b>
<b>R C U</b>	Wait for better weather.	
	Wait for liberty men.....	<b>O P Y</b>
	Water and coal, Require.....	<b>M S L</b>
<b>R C V</b>	Water-boat, Tow, alongside this or designated ship.	
	Water has shoaled suddenly.....	<b>O Y H</b>
	Water, Hold .....	<b>M Y Q</b>
<b>R C W</b>	Water is bad.	
<b>R C X</b>	Water is brackish.	
<b>R C Y</b>	Water is good.	
<b>R C Z</b>	Watering-place, A good.	
	Water, Require .....	<b>M S J</b>
<b>R D A</b>	Water supply, Attack and destroy enemy's.	
<b>R D B</b>	Water, There is plenty of.	
	Water while ashore .....	<b>M S K</b>
	Waste, Do not, ammunition.....	<b>N G J</b>
	Way, You are in the, of boats about to start race	<b>N K E</b>
	Wear or tack at discretion.....	<b>R B H</b>
	Wear immediately .....	<b>M Y R</b>
	Wear in succession .....	<b>M Y S</b>
	Wear together .....	<b>M Y T</b>
<b>R D C</b>	Weather, Bad, is predicted.	
<b>R D E</b>	Weather, Good, is predicted.	
	Weather, Wait for better.....	<b>R C U</b>
	Well done .....	<b>O H Y</b>
	Whale-boats .....	<b>N J Z</b>
<b>R D F</b>	Whale-boat, Send.	
<b>R D G</b>		
	Where is torpedo.....	<b>N F C</b>
<b>R D H</b>	Who is in charge of boat (flotilla) indicated?	
	Wind changed, Change front to direction indicated .....	<b>M Y U</b>
	Wind, Keep close to the.....	<b>M Y V</b>
	Wind, You are too close to the.....	<b>M Y W</b>
	Wins, Boat (or vessel), race (indicate-d by distinguishing-pennant and number) .....	<b>N K T</b>
<b>R D I</b>	Wireless station, Destroy the, if you cannot hold it.	
<b>R D J</b>	Wireless station, Take possession of.	

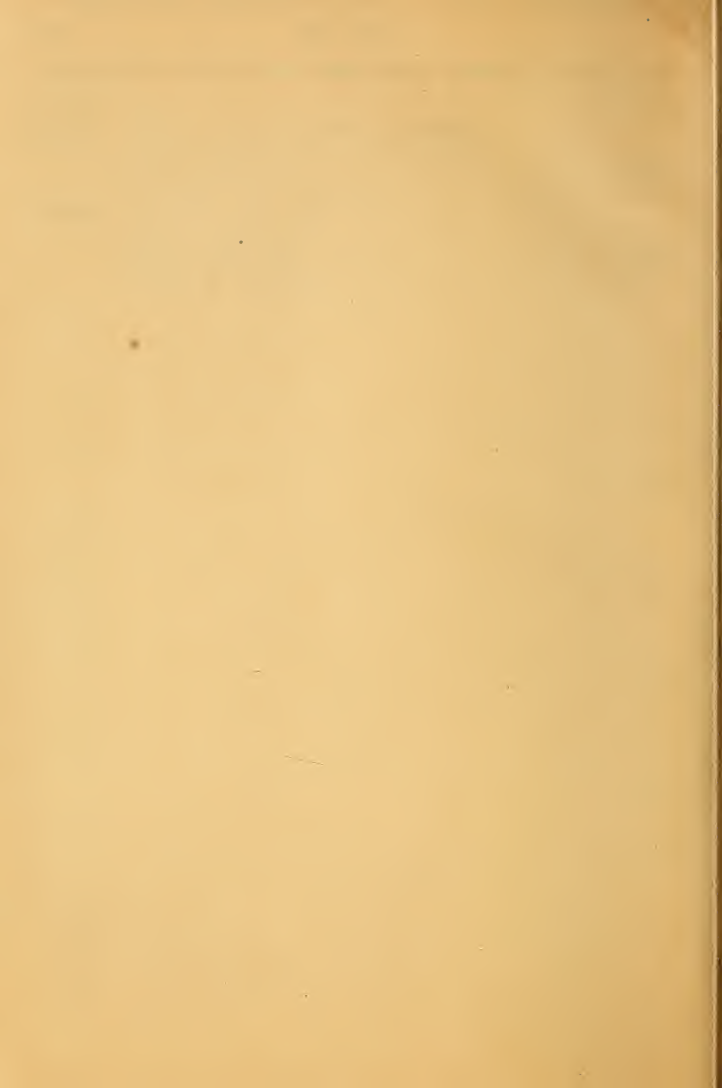
Miscellaneous Signals and Alphabetical Reference.—*Continued.*

## LETTERS

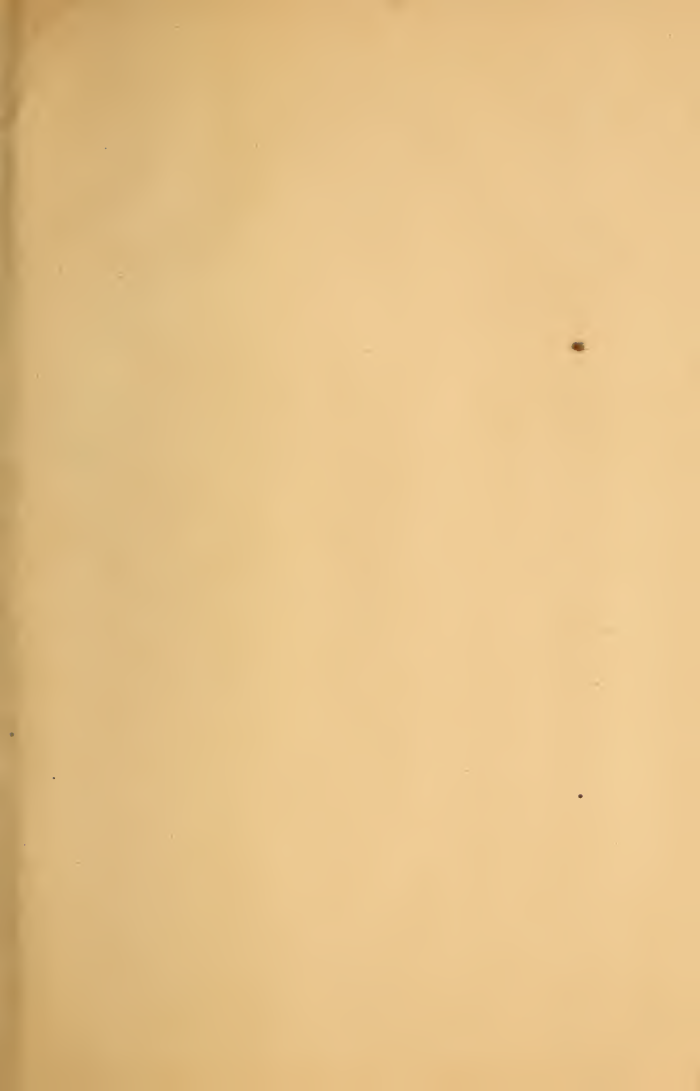
## LETTERS

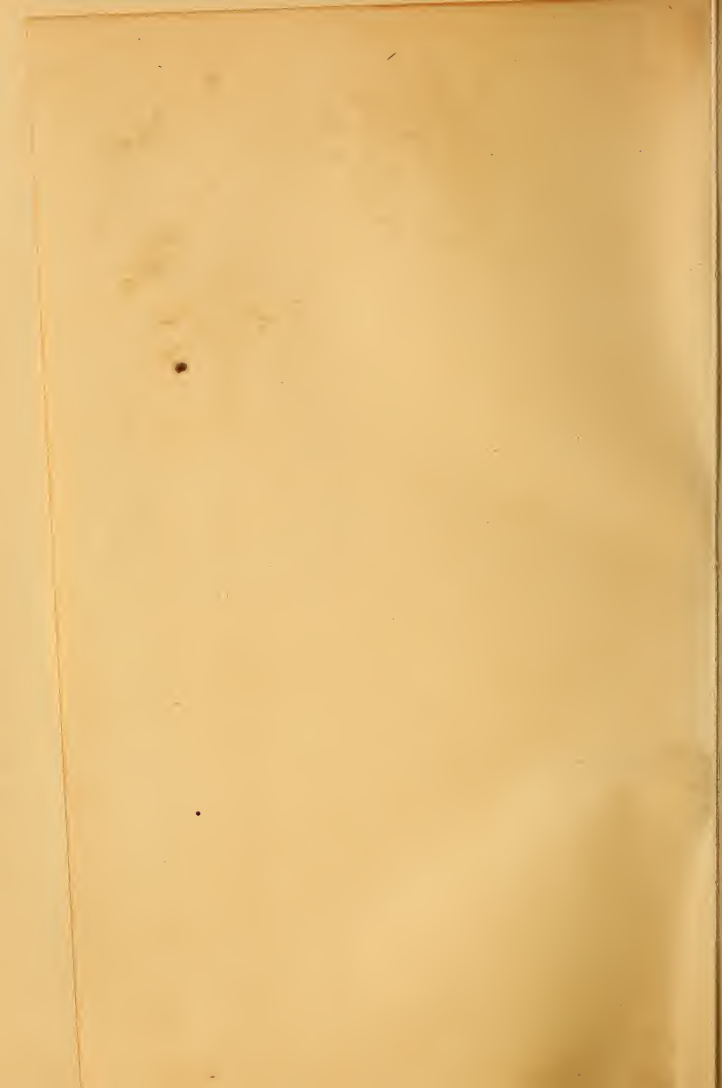
<b>RDK</b>	Wireless station, Attack the enemy's.	
<b>RDL</b>	Wireless station is in our possession.	
	Woods, Shell the .....	<b>NHV</b>
	Working parties, Bring off.....	<b>NYT</b>
<b>RDM</b>	Wounded, Bring off.	
	Wreck, Abandon the .....	<b>NLE</b>
	Wreck, Board the .....	<b>NWL</b>
	Wrong, Is anything .....	<b>NFG</b>













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